

STIC Search Report

STIC Database Tracking Number: 135148

TO: Irina Zemel

Location: REM 10D64

Art Unit: 1711 October 19, 2004

Case Serial Number: 10/812838

From: Kathleen Fuller Location: EIC 1700

REMSEN 4B28

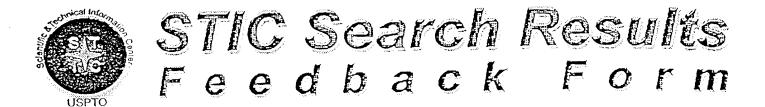
Phone: 571/272-2505

Kathleen.Fuller@uspto.gov

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Questions about the scope or the results of the search? Contact the EIC searcher or contact:

Kathleen Fuller, EIC 1700 Team Leader 571/272-2505 REMSEN 4B28

Water Market Comment of the Comment

Volumeny Results Feedback Form
 I am an examiner in Workgroup: Example: 1713 Relevant prior art found, search results used as follows:
102 rejection
103 rejection
Cited as being of interest.
Helped examiner better understand the invention.
Helped examiner better understand the state of the art in their technology.
Types of relevant prior art found:
Foreign Patent(s)
Non-Patent Literature (journal articles, conference proceedings, new product announcements etc.)
> Relevant prior art not found:
Results verified the lack of relevant prior art (helped determine patentability).
Results were not useful in determining patentability or understanding the invention.
Comments:

Drop off or send completed forms to EIC1700 REMSEN 4B28 17.



Smith, Teresa (ASRC)

From:	
Sent:	

Unknown@Unknown.com

Friday, October 15, 2004 1:07 PM

To: Subject:

STIC-EIC1700 Generic form response

ResponseHeader=Commercial Database Search Request

AccessDB#= 15°	5143
LogNumber=	
Searcher=	
SearcherPhone=	
SaaraharDwanet	

MyDate=Fri Oct 15 13:07:09 EDT 2004

submitto=STIC-EIC1700@uspto.gov

Name=Irina Zemel

Empno=71033

Phone=20577

Artunit=1711

Office=REM10D64

Serialnum=10812838

PatClass=

Earliest=

Searchtopic=Please see formulas 1 and 2 in claims 1 and 4.

Comments=

send=SEND

SCIENTIFIC REFERENCE BR Sci. & Tech. Info. Ontr

00114

Pat. & T.M. Office

ZEMEL 10/812838 10/19/04 Page 1

=> FILE REG

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Property values tagged with IC are from the ZIC/VINITI data file provided by InfoChem.

STRUCTURE FILE UPDATES: 18 OCT 2004 HIGHEST RN 765254-38-4 DICTIONARY FILE UPDATES: 18 OCT 2004 HIGHEST RN 765254-38-4

TSCA INFORMATION NOW CURRENT THROUGH MAY 21, 2004

Please note that search-term pricing does apply when conducting SmartSELECT searches.

Crossover limits have been increased. See HELP CROSSOVER for details.

Experimental and calculated property data are now available. For more information enter HELP PROP at an arrow prompt in the file or refer to the file summary sheet on the web at: http://www.cas.org/ONLINE/DBSS/registryss.html

=> FILE HCAPLUS

FILE 'HCAPLUS' ENTERED AT 15:51:27 ON 19 OCT 2004
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FILE COVERS 1907 - 19 Oct 2004 VOL 141 ISS 17 FILE LAST UPDATED: 18 Oct 2004 (20041018/ED)

This file contains CAS Registry Numbers for easy and accurate substance identification.

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VAR G1=50/38 NODE ATTRIBUTES: DEFAULT MLEVEL IS ATOM DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES: RING(S) ARE ISOLATED OR EMBEDDED NUMBER OF NODES IS 35

STEREO ATTRIBUTES: NONE

2

7 SEA FILE=REGISTRY SSS FUL L46 L51 8 SEA FILE=HCAPLUS ABB=ON L49

=> D L51 1-8 BIB ABS IND HITSTR

ANSWER 1 OF 8 HCAPLUS COPYRIGHT 2004 ACS on STN

AN2004:802608 HCAPLUS

Polymerizable monomers and process of preparation thereof ΤI

Kulkarni, Mohan Gopalkrishna; Khandare, Jayant Jagannath ΙN

PA

SO U.S. Pat. Appl. Publ., 9 pp.

CODEN: USXXCO

DTPatent

LΑ English

FAN. CNT

ran.cni i					
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE	
PI US 2004192905	A1	20040930	US 2003-402256	2002022	
PRAI US 2003-402256		20030331	05 2005 402250	20030331	

The present invention relates to polymerizable monomers for applications AΒ in medicine and biotechnol. and synthesis thereof. The polymerizable ligands containing N-acetylglucosamine (NAG) bind more strongly to lysozyme than NAG itself. The binding is further enhanced when a spacer arm, for example 6-aminocaproic acid (6-ACA) is introduced in the structure. The conjugated ligands could be used for prevention and treatment of bacterial and viral infections. Moreover these ligands can be coupled to stimuli-sensitive polymers and used for the recovery of biomols. The methodol. can be extended to other ligands such as sialic acid and the

Compound

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corresponding polymers used for preventing influenza and for rotavirus infections. For example, acryloyl 6-aminocaproic acid N-acetylglucosamine was prepared from 5 g of acryloyl 6-aminocaproic acid and $5.97~{
m g}$ of N-acetylglucosamine. With the incorporation of spacer arm 6-ACA, the binding consts. to lysozyme was increased almost 2650 times compared to NAG. ICM C07H017-02 ICS C08G063-48 536053000; 536119000; 525054200 1-5 (Pharmacology) Section cross-reference(s): 9, 33 acetylglucosamine polymerizable monomer prepn infection Infection (bacterial; preparation of polymerizable monomers as potential agents for prevention and treatment of infections) Influenza virus Rotavirus (infection with; preparation of polymerizable monomers as potential agents for prevention and treatment of infections) RL: RCT (Reactant); RACT (Reactant or reagent) (ligand; preparation of polymerizable monomers as potential agents for prevention and treatment of infections) RL: SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses) (preparation of polymerizable monomers as potential agents for prevention and treatment of infections) Infection (viral; preparation of polymerizable monomers as potential agents for prevention and treatment of infections) 9001-63-2, Lysozyme RL: BSU (Biological study, unclassified); BIOL (Biological study) (binding to; preparation of polymerizable monomers as potential agents for prevention and treatment of infections) 538-75-0, Dicyclohexyl carbodiimide 1892-57-5, 1-Ethyl-3-(3dimethylaminopropyl)carbodiimide 2491-17-0, 1-Cyclohexyl-3-(2morpholinoethyl)carbodiimide metho-p-toluenesulfonate RL: RGT (Reagent); RACT (Reactant or reagent) (coupling agent; preparation of polymerizable monomers as potential agents for prevention and treatment of infections) 59-23-4, D-Galactose 3458-28-4, D-Mannose 7512-17-6, N-Acetylglucosamine RL: RCT (Reactant); RACT (Reactant or reagent) (ligand; preparation of polymerizable monomers as potential agents for prevention and treatment of infections) 60-32-2, 6-Aminocaproic acid 814-68-6, Acryloyl chloride Methacryloyl chloride 20766-85-2, Acryloyl 6-aminocaproic acid RL: RCT (Reactant); RACT (Reactant or reagent) (preparation of polymerizable monomers as potential agents for prevention and treatment of infections) 59178-92-6P, Methacryloyl 6-aminocaproic acid RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent) (preparation of polymerizable monomers as potential agents for prevention and treatment of infections) 207442-00-0P 763084-38-4P RL: SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological

study); PREP (Preparation); USES (Uses)

(preparation of polymerizable monomers as potential agents for prevention and treatment of infections)

IT 207442-00-0P

RL: SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(preparation of polymerizable monomers as potential agents for prevention and treatment of infections)

RN207442-00-0 HCAPLUS

D-Glucose, 2-(acetylamino)-2-deoxy-, 6-(2-propenoate) (9CI) (CA INDEX CN NAME)

Absolute stereochemistry.

L51 ANSWER 2 OF 8 HCAPLUS COPYRIGHT 2004 ACS on STN

ΑN 2002:556037 HCAPLUS

DN 137:121600

Synthesis and use for enzyme separation of thermoprecipitating polymers ΤI containing enzyme-specific ligands

Vaidya, Alankar Arun; Lele, Bhalchandra Shripad; Kulkarni, Mohan ΙN Gopalkrishna; Mashelkar, Raghunath Anant

Council of Scientific & Industrial Research, India PA

U.S. Pat. Appl. Publ., 12 pp. SO CODEN: USXXCO

DT Patent.

LA

English

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	Damm		
					DATE		
ΡI	US 2002098567	A1	20020725	US 2000-725641	20001129		
	US 6605714	B2	20030812				
	US 2003027959	A 1	20030206	US 2002-127322	20020422		
PRAI	US 2000-725641	A 3	20001129	12 2002 12/022	20020422		
OS	CASREACT 137:121600						

The present invention provides novel thermopptg. polymers containing novel AB enzyme-sensitive ligands, processes for the preparation thereof resp., and to the use thereof for the separation of enzymes. Thus, acrylated monomers containing

N-acetylglucosamine, glycine, β -alanine, 4-aminobutyric acid, 6-aminocaproic acid, or glycine are polymerized with a thermosensitive monomer in the presence of a polymerization initiator and polymerization accelerator in a

solvent at $30-80^{\circ}$ for 1-12 h. The invention also relates to a process for the separation of lysozyme comprising contacting the thermopptg. affinity polymer with an aqueous solution of lysozyme or a mixture of lysozyme and

other proteins at a temperature in the range of $4\text{--}20\,^{\circ}$ for a time period of 1-16 h, followed by raising the temperature above the LCST (lower critical solution

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temperature) of the polymer. The precipitated polymer-lysozyme complex is
  isolated,
      redissolved in an acidic aqueous solution, and the temperature of the solution
 raised
      above the LCST of the polymer, thus isolating the pptd polymer and
      recovering lysozyme from the solution With a glycylglycine/acetic
      anhydride/N-isopropylacrylamide polymer, lysozyme activity increased from
      6657 to 33,672 units with 20-21% recovery. The polymers are more stable
      as compared to N-acetylglucosamine-containing polymer, and are reusable for 16
      continuous cycles of solubility/precipitation
 IC
      ICM C12N009-36
      ICS C08G069-48
 NCL
     435206000
 CC
      7-2 (Enzymes)
      Section cross-reference(s): 35
 ST
      thermopptg polymer ligand enzyme sepn
      Polymerization catalysts
 IT
         (synthesis and use for enzyme separation of thermopptg. polymers containing
         enzyme-specific ligands)
 IT
      Acrylic polymers, preparation
      RL: PEP (Physical, engineering or chemical process); PYP (Physical
      process); SPN (Synthetic preparation); PREP (Preparation); PROC (Process)
         (synthesis and use for enzyme separation of thermopptg. polymers containing
         enzyme-specific ligands)
 IT
      Enzymes, preparation
      RL: PUR (Purification or recovery); PREP (Preparation)
         (synthesis and use for enzyme separation of thermopptg. polymers containing
         enzyme-specific ligands)
 TΨ
      Polymers, preparation
     RL: PEP (Physical, engineering or chemical process); PYP (Physical
     process); SPN (Synthetic preparation); PREP (Preparation); PROC (Process)
         (thermopptg.; synthesis and use for enzyme separation of thermopptg.
        polymers containing enzyme-specific ligands)
ΙT
      Precipitation (chemical)
         (thermopptn.; synthesis and use for enzyme separation of thermopptg.
        polymers containing enzyme-specific ligands)
     538-75-0, Dicyclohexylcarbodiimide
                                          1892-57-5, 1-Ethyl-3-(3-
     dimethylaminopropyl)carbodiimide
                                        2491-17-0, 1-Cyclohexyl
     3-(2-morpholinoethyl)carbodiimide metho-p-toluenesulfonate
     RL: RGT (Reagent); RACT (Reactant or reagent)
        (condensing agent; synthesis and use for enzyme separation of thermopptg.
        polymers containing enzyme-specific ligands)
IT
     110-18-9, TEMED
                       7681-57-4, Sodium metabisulfite
                                                         16731-55-8, Potassium
     metabisulfite
     RL: RGT (Reagent); RACT (Reactant or reagent)
        (polymerization accelerator; synthesis and use for enzyme separation of
thermopptg.
        polymers containing enzyme-specific ligands)
     78-67-1 7727-21-1, Potassium persulfate 7727-54-0, Ammonium persulfate
ΙT
     RL: CAT (Catalyst use); USES (Uses)
        (polymerization initiator; synthesis and use for enzyme separation of
thermopptg.
        polymers containing enzyme-specific ligands)
IT
     227182-79-8P
                    389636-42-4P 389636-44-6P
                                                  389636-45-7P 389636-46-8P
     389636-47-9P
                    389636-48-0P 443905-61-1P
    RL: PEP (Physical, engineering or chemical process); PYP (Physical
    process); SPN (Synthetic preparation); PREP (Preparation); PROC (Process)
        (synthesis and use for enzyme separation of thermopptg. polymers containing
```

enzyme-specific ligands)

IT 9001-63-2P, Lysozyme

RL: PUR (Purification or recovery); PREP (Preparation) (synthesis and use for enzyme separation of thermopptg. polymers containing enzyme-specific ligands)

TT 56-12-2, 4-Aminobutyric acid, reactions 56-40-6, Glycine, reactions 60-32-2, 6-Aminocaproic acid 75-36-5, Acetyl chloride 79-06-1, Acrylamide, reactions 88-12-0, reactions 107-95-9, β-Alanine 108-24-7, Acetic anhydride 556-50-3, Glycylglycine 814-68-6, Acryloyl chloride 2210-25-5, N-Isopropylacrylamide 2235-00-9, N-Vinylcaprolactam 7512-17-6, N-Acetylglucosamine 13749-61-6, N-Isopropylmethacrylamide

RL: RCT (Reactant); RACT (Reactant or reagent)

(synthesis and use for enzyme separation of thermopptg. polymers containing enzyme-specific ligands)

IT 543-24-8P 868-77-9P, 2-Hydroxyethylmethacrylate 1432-45-7P 3025-95-4P 3025-96-5P, 4-Acetamidobutyric acid 5687-48-9P 207442-00-0P 389636-39-9P 389636-40-2P 389636-41-3P 389636-43-5P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(synthesis and use for enzyme separation of thermopptg. polymers containing enzyme-specific ligands)

IT 57-08-9P, 6-Acetamidocaproic acid

RL: SPN (Synthetic preparation); PREP (Preparation) (synthesis and use for enzyme separation of thermopptg. polymers containing enzyme-specific ligands)

IT 443905-61-1P

RL: PEP (Physical, engineering or chemical process); PYP (Physical process); SPN (Synthetic preparation); PREP (Preparation); PROC (Process) (synthesis and use for enzyme separation of thermopptg. polymers containing enzyme-specific ligands)

RN 443905-61-1 HCAPLUS

CN D-Glucose, 2-(acetylamino)-2-deoxy-, 6-(2-propenoate), polymer with N-(1-methylethyl)-2-propenamide (9CI) (CA INDEX NAME)

CM 1

CRN 207442-00-0 CMF C11 H17 N O7

Absolute stereochemistry.

CM 2

CRN 2210-25-5 CMF C6 H11 N O

IT 207442-00-0P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(synthesis and use for enzyme separation of thermopptg. polymers containing enzyme-specific ligands)

RN 207442-00-0 HCAPLUS

CN D-Glucose, 2-(acetylamino)-2-deoxy-, 6-(2-propenoate) (9CI) (CA INDEX NAME)

Absolute stereochemistry.

L51 ANSWER 3 OF 8 HCAPLUS COPYRIGHT 2004 ACS on STN

AN 2002:327811 HCAPLUS

DN 136:341175

TI Process for the preparation of molecularly imprinted polymers for separation of enzymes

IN Vaidya, Alankar Arun; Lele, Bhalchandra Shripad; Kulkarni, Mohan Gopalkrishna; Mashelkar, Raghunath Anant

PA Council of Scientific and Industrial Research, India

SO U.S., 5 pp. CODEN: USXXAM

DT Patent

LA English

FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE		
PI US 6379599 PRAI US 2000-481650	B1	20020430 20000110	US 2000-481650	20000110		

AB The process comprises (A) reacting a complex of enzyme (e.g., trypsin) and an affinity monomer (e.g., N-acryloyl p-aminobenzamidine hydrochloride) that specifically recognizes the enzyme, a comonomer (e.g., acrylamide), and a crosslinker (e.g., methylenebis acrylamide) in the presence of a polymerization initiator (e.g., ammonium persulfate) and a polymerization accelerator

(e.g., tetramethylethylenediamine) at ambient temperature and pressure for 2-24 h to form a crosslinked polymer, (B) crushing the crosslinked polymer to fine particles and (C) adding a solvent (e.g., acetone and chloroform) and extracting the enzyme from the polymer to give a molecularly imprinted polymer. The molecularly imprinted polymers exhibit selective binding of imprinted enzyme, and are useful in separating the imprinted enzyme from aqueous solution of the

imprinted enzyme or a mixture containing imprinted enzyme and other enzymes.

IC ICM C08J005-00 ICS C08F002-44

NCL 264220000

CC 35-4 (Chemistry of Synthetic High Polymers)
 Section cross-reference(s): 7

ST molecularly imprinted polymers prepn enzyme sepn; acryloylaminobenzamidine acrylamide copolymer mol imprinting trypsin

IT Polymerization catalysts

(preparation of molecularly imprinted polymers for separation of enzymes) Enzymes, preparation

Ovalbumin

IT

IT

RL: BUU (Biological use, unclassified); PUR (Purification or recovery); BIOL (Biological study); PREP (Preparation); USES (Uses)

(preparation of molecularly imprinted polymers for separation of enzymes)

IT 351036-77-6P 418792-87-7P 418792-89-9P 418792-92-4P

RL: BUU (Biological use, unclassified); IMF (Industrial manufacture); BIOL (Biological study); PREP (Preparation); USES (Uses)

(preparation of molecularly imprinted polymers for separation of enzymes) 9001-63-2P, Lysozyme 9002-07-7P, Trypsin 9004-07-3P, Chymotrypsin RL: BUU (Biological use, unclassified); PUR (Purification or recovery); BIOL (Biological study); PREP (Preparation); USES (Uses)

(preparation of molecularly imprinted polymers for separation of enzymes)

78-67-1, Azobis(isobutyro)nitrile 107-15-3, Ethylenediamine, uses
110-18-9 7637-03-8, Ceric ammonium sulfate 7727-21-1, Potassium
persulfate 7727-54-0, Ammonium persulfate
RL: CAT (Catalyst use); USES (Uses)

(preparation of molecularly imprinted polymers for separation of enzymes)

IT 418792-89-9P

RL: BUU (Biological use, unclassified); IMF (Industrial manufacture); BIOL (Biological study); PREP (Preparation); USES (Uses)

(preparation of molecularly imprinted polymers for separation of enzymes)

RN 418792-89-9 HCAPLUS

CN D-Glucose, 2-(acetylamino)-2-deoxy-, 6-(2-propenoate), polymer with N,N'-methylenebis[2-propenamide] and 2-propenamide (9CI) (CA INDEX NAME)

CM 1

CRN 207442-00-0 CMF C11 H17 N O7

Absolute stereochemistry.

CM 2

CRN 110-26-9 CMF C7 H10 N2 O2

CM 3

CRN 79-06-1 CMF C3 H5 N O

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RE.CNT 4 THERE ARE 4 CITED REFERENCES AVAILABLE FOR THIS RECORD ALL CITATIONS AVAILABLE IN THE RE FORMAT

L51 ANSWER 4 OF 8 HCAPLUS COPYRIGHT 2004 ACS on STN

AN 2001:704378 HCAPLUS

DN 136:101118

TI Design and evaluation of new ligands for lysozyme recovery by affinity thermo-precipitation

AU Vaidya, A. A.; Lele, B. S.; Deshmukh, M. V.; Kulkarni, M. G.

CS Polymer Science and Engineering Unit, Chemical Engineering Division, National Chemical Laboratory, Pune, 411 008, India

SO Chemical Engineering Science (2001), 56(19), 5681-5692 CODEN: CESCAC; ISSN: 0009-2509

PB Elsevier Science Ltd.

DT Journal

LA English

AB Ligands containing acetamido group and a spacer were conjugated with an acrylic monomer and copolymd. with N-isopropylacrylamide (NIPAM) to yield a thermo-precipitating polymer. The ability of the ligand to bind to lysozyme, which is the first step in the separation of lysozyme, is quantified in terms of I50, the ligand concentration required to achieve 50% of the maximum attainable

inhibition of lysozyme. The copolymers containing acetamido groups inhibit lysozyme far more efficiently than the corresponding polymers containing N-acetylglucosamine, the natural inhibitor for lysozyme. The amount and activity of lysozyme recovered from the aqueous solution as well as lysozyme-ovalbumin mixture increased with the length and the hydrophilicity of the spacer. These polymers also exhibited better recyclability.

CC 16-1 (Fermentation and Bioindustrial Chemistry)

ST lysozyme purifn affinity thermopptn

IT Precipitation (chemical)

(affinity thermo; design and evaluation of new ligands for lysozyme recovery by affinity thermo-precipitation)

IT Polymerization

(co-; design and evaluation of new ligands for lysozyme recovery by affinity thermo-precipitation)

IT 57-08-9, 6-Acetamido caproic acid 543-24-8 1432-45-7 3025-95-4 3025-96-5, 4-Acetamidobutyric acid 5687-48-9 207442-00-0, D-Glucose, 2-(acetylamino)-2-deoxy-, 6-(2-propenoate) RL: PEP (Physical, engineering or chemical process); PYP (Physical

process); RCT (Reactant); PROC (Process); RACT (Reactant or reagent)
 (design and evaluation of new ligands for lysozyme recovery by affinity
 thermo-precipitation)

IT 227182-79-8P 348625-87-6P 389636-44-6P 389636-45-7P 389636-46-8P 389636-47-9P 389636-48-0P RL: PEP (Physical, engineering or chemical process); PYP (Physical process); SPN (Synthetic preparation); PREP (Preparation); PROC (Process) (design and evaluation of new ligands for lysozyme recovery by affinity thermo-precipitation)

IT 9001-63-2P, Lysozyme

RL: PUR (Purification or recovery); PREP (Preparation) (design and evaluation of new ligands for lysozyme recovery by affinity thermo-precipitation)

IT 868-77-9, 2-Hydroxyethylmethacrylate 2210-25-5, NIPAM 71849-58-6, Hydroxybenzotriazole

RL: RCT (Reactant); RACT (Reactant or reagent)

(design and evaluation of new ligands for lysozyme recovery by affinity thermo-precipitation)

IT 389636-39-9P 389636-40-2P 389636-41-3P 389636-42-4P 389636-43-5P RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(design and evaluation of new ligands for lysozyme recovery by affinity thermo-precipitation)

207442-00-0, D-Glucose, 2-(acetylamino)-2-deoxy-, 6-(2-propenoate)
RL: PEP (Physical, engineering or chemical process); PYP (Physical process); RCT (Reactant); PROC (Process); RACT (Reactant or reagent) (design and evaluation of new ligands for lysozyme recovery by affinity thermo-precipitation)

RN 207442-00-0 HCAPLUS

CN D-Glucose, 2-(acetylamino)-2-deoxy-, 6-(2-propenoate) (9CI) (CA INDEX NAME)

Absolute stereochemistry.

IT 348625-87-6P

RL: PEP (Physical, engineering or chemical process); PYP (Physical process); SPN (Synthetic preparation); PREP (Preparation); PROC (Process) (design and evaluation of new ligands for lysozyme recovery by affinity thermo-precipitation)

RN 348625-87-6 HCAPLUS

CN β -D-Glucopyranose, 2-(acetylamino)-2-deoxy-6-O-(1-oxo-2-propenyl)-, polymer with N-(1-methylethyl)-2-propenamide (9CI) (CA INDEX NAME)

CM 1

CRN 348625-86-5 CMF C11 H17 N O7

Absolute stereochemistry.

CM 2

CRN 2210-25-5 CMF C6 H11 N O

RE.CNT 45 THERE ARE 45 CITED REFERENCES AVAILABLE FOR THIS RECORD ALL CITATIONS AVAILABLE IN THE RE FORMAT

L51 ANSWER 5 OF 8 HCAPLUS COPYRIGHT 2004 ACS on STN

AN 2001:219673 HCAPLUS

DN 135:88995

TI Thermoprecipitation of lysozyme from egg white using copolymers of N-isopropylacrylamide and acidic monomers

AU Vaidya, A. A.; Lele, B. S.; Kulkarni, M. G.; Mashelkar, R. A.

CS Chemical Engineering Division, Polymer Science and Engineering Group, National Chemical Laboratory, Pune, 411 008, India

SO Journal of Biotechnology (2001), 87(2), 95-107 CODEN: JBITD4; ISSN: 0168-1656

PB Elsevier Science Ltd.

DT Journal

LA English

Thermopptn. of lysozyme from egg white was demonstrated using copolymers AΒ of N-isopropylacrylamide with acrylic acid, methacrylic acid, 2-acryloylamido-2-methylpropane-sulfonic acid and itaconic acid, resp. Polymers synthesized using molar feed ratio of Nisopropylacrylamide: acidic monomers of 98:2 exhibited lower critical solution temps. in the range of 33-35°C. These polymers exhibited electrostatic interactions with lysozyme and inhibited its bacteriolytic activity. The concentration of acidic groups required to attain 50% relative inhibition of lysozyme by the polymers, was 104-105 times lower than that required for the corresponding monomers. This was attributed to the multimeric nature of polymer-lysozyme binding. More than 90% lysozyme activity was recovered from egg white. Polymers exhibited re-usability up to at least 16 cycles with retention of >85% recovery of specific activity from aqueous solution In contrast, copolymer comprising natural inhibitor of lysozyme i.e., poly (N-isopropylacrylamide-co-O-acryloyl N-acetylglucosamine) lost 50% recovery of specific activity. Thermopptn. using these copolymers, which enables very high recovery of lysozyme from egg white, would be advantageous over pH sensitive polymers, which generally exhibit lower recovery.

```
CC
      7-3 (Enzymes)
      thermoppin lysozyme isopropylacrylamide copolymer acidic monomer
 ST
      Precipitation (chemical)
         (thermo-induced; thermopptn. of lysozyme from egg white using
         copolymers of N-isopropylacrylamide and acidic monomers)
 IT
      Dissociation constant
      Electrostatic force
         (thermopptn. of lysozyme from egg white using copolymers of
         N-isopropylacrylamide and acidic monomers)
 IT
                   79042-19-6P, N-Isopropylacrylamide-acrylic acid polymer
      151954-97-1P, N-Isopropylacrylamide-methacrylic acid copolymer
      252371-64-5P, N-Isopropylacrylamide-itaconic acid copolymer
      348625-87-6P
      RL: BAC (Biological activity or effector, except adverse); BSU (Biological
      study, unclassified); NUU (Other use, unclassified); PEP (Physical,
      engineering or chemical process); SPN (Synthetic preparation); BIOL
      (Biological study); PREP (Preparation); PROC (Process); USES (Uses)
         (thermopptn. of lysozyme from egg white using copolymers of
         N-isopropylacrylamide and acidic monomers)
 IT
      9001-63-2P, Lysozyme
      RL: BPR (Biological process); BSU (Biological study, unclassified); PEP
      (Physical, engineering or chemical process); PUR (Purification or
      recovery); BIOL (Biological study); PREP (Preparation); PROC (Process)
         (thermopptn. of lysozyme from egg white using copolymers of
        N-isopropylacrylamide and acidic monomers)
IT
      79-10-7, Acrylic acid, reactions
                                        79-41-4, Methacrylic acid, reactions
     97-65-4, Itaconic acid, reactions 2210-25-5, N-Isopropylacrylamide
     15214-89-8, AMPS 348625-86-5
     RL: RCT (Reactant); RACT (Reactant or reagent)
         (thermopptn. of lysozyme from egg white using copolymers of
        N-isopropylacrylamide and acidic monomers)
ΙT
     348625-87-6P
     RL: BAC (Biological activity or effector, except adverse); BSU (Biological
     study, unclassified); NUU (Other use, unclassified); PEP (Physical,
     engineering or chemical process); SPN (Synthetic preparation); BIOL
     (Biological study); PREP (Preparation); PROC (Process); USES (Uses)
        (thermopptn. of lysozyme from egg white using copolymers of
        N-isopropylacrylamide and acidic monomers)
     348625-87-6 HCAPLUS
RN
     \beta-D-Glucopyranose, 2-(acetylamino)-2-deoxy-6-0-(1-oxo-2-propenyl)-,
CN
     polymer with N-(1-methylethyl)-2-propenamide (9CI) (CA INDEX NAME)
     CM
          1
     CRN 348625-86-5
     CMF C11 H17 N O7
Absolute stereochemistry.
```

CM 2

CRN 2210-25-5 CMF C6 H11 N O

$$\begin{array}{c|c}
 & O \\
 & || \\
 & i-PrNH-C-CH-CH_2
\end{array}$$

IT 348625-86-5

RL: RCT (Reactant); RACT (Reactant or reagent)
 (thermopptn. of lysozyme from egg white using copolymers of
N-isopropylacrylamide and acidic monomers)

RN 348625-86-5 HCAPLUS

CN β -D-Glucopyranose, 2-(acetylamino)-2-deoxy-, 6-(2-propenoate) (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RE.CNT 31 THERE ARE 31 CITED REFERENCES AVAILABLE FOR THIS RECORD ALL CITATIONS AVAILABLE IN THE RE FORMAT

L51 ANSWER 6 OF 8 HCAPLUS COPYRIGHT 2004 ACS on STN

AN 1998:262357 HCAPLUS

DN 129:5154

TI Thermal analysis of polyacrylic acid modified by some glucosamine derivatives

AU Tirkistani, Fahd A. A.

CS Department of Chemistry, Faculty of Applied Sciences, Umm Al-Qura University, Makkah Al Mukkarmah, Saudi Arabia

SO Carbohydrate Polymers (1998), Volume Date 1997, 34(4), 329-334 CODEN: CAPOD8; ISSN: 0144-8617

- Elsevier Science Ltd. PB
- DT Journal
- LA English
- Polymerization of acrylic acid in the presence of N-acetylglucosamine and AΒ glucosamine hydrochloride was carried out and the products were characterized using IR spectroscopy. A mechanism for the formation of the modified polymers was suggested. Thermal analyses of the polymers formed were studied. The polymers containing free amino groups are more stable than other polymers.
- 37-5 (Plastics Manufacture and Processing) Section cross-reference(s): 35
- STthermal analysis glucosamine group contg polyacrylate; polyacetylglucosamine acrylate prepn characterization; polyglucosamine hydrochloride acrylate prepn characterization
- 66-84-2, Glucosamine hydrochloride ΙT 79-10-7, 2-Propenoic acid, reactions 7512-17-6, N-Acetylglucosamine RL: RCT (Reactant); RACT (Reactant or reagent)

(in preparation of glucosamine group-containing polyacrylate) 207442-01-1P, Poly(N-acetylglucosamine acrylate) 207442-05-5P,

Poly(glucosamine hydrochloride acrylate) RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation) (preparation and thermal anal. of)

207442-01-1P, Poly(N-acetylglucosamine acrylate) IT RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation) (preparation and thermal anal. of)

RN 207442-01-1 HCAPLUS

D-Glucose, 2-(acetylamino)-2-deoxy-, 6-(2-propenoate), homopolymer (9CI) CN (CA INDEX NAME)

CM 1

IT

CRN 207442-00-0 C11 H17 N O7

Absolute stereochemistry.

THERE ARE 7 CITED REFERENCES AVAILABLE FOR THIS RECORD RE.CNT 7 ALL CITATIONS AVAILABLE IN THE RE FORMAT

ANSWER 7 OF 8 HCAPLUS COPYRIGHT 2004 ACS on STN

1994:164688 HCAPLUS AN

DN 120:164688

- Selective monoesterification of unprotected mono- and disaccharides TΤ
- Bourhim, Abdellatif; Czernecki, Stanislas; Krausz, Pierre ΑU
- Lab. Chim. Glucides, Univ. Pierre Marie Curie, Paris, 75005, Fr. CS
- Journal of Carbohydrate Chemistry (1993), 12(7), 853-63 SO CODEN: JCACDM; ISSN: 0732-8303
- DTJournal
- LA English
- OS CASREACT 120:164688

AB Under mild conditions, treatment of unprotected methyl- α -D-glucopyranoside, N-acetylglucosamine and maltose with triphenylphosphine, diethylazodicarboxylate and equimolar amount of various carboxylic acids allowed regioselective 6-O-esterifications (6'-O for maltose) of the carbohydrate without esterification of other hydroxyl groups. This reaction found an application in the synthesis of liposol., labeled sugars and hydrosol. polymers.

CC 33-4 (Carbohydrates)

ST monosaccharide Mitsunobu regioselective esterification; oligosaccharide Mitsunobu regioselective esterification

IT Monosaccharides

Oligosaccharides

RL: RCT (Reactant); RACT (Reactant or reagent) (Mitsunobu regioselective esterification of)

IT Esterification

Regiochemistry

(Mitsunobu regioselective esterification of unprotected mono- and disaccharides)

TT 50-99-7, D-Glucose, reactions 65-85-0, Benzoic acid, reactions 69-79-4 76-54-0 79-41-4, reactions 97-30-3 143-07-7, Dodecanoic acid, reactions 828-51-3 2154-67-8 7512-17-6 RL: RCT (Reactant); RACT (Reactant or reagent)

(Mitsunobu regioselective esterification of)

IT 4338-28-7P 77607-15-9P 109922-92-1P 121408-62-6P 121408-64-8P 121408-65-9P 121408-68-2P 121424-62-2P 121469-97-4P 153474-58-9P 153474-59-0P 153474-61-4P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(preparation and and acetylation of)

IT 32849-04-0P 153474-62-5P 153474-63-6P 153474-64-7P 153474-65-8P 153507-37-0P 153507-38-1P RL: SPN (Synthetic preparation); PREP (Preparation)

(preparation of)

IT 121408-64-8P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent) (preparation and and acetylation of)

RN 121408-64-8 HCAPLUS

CN D-Glucose, 2-(acetylamino)-2-deoxy-, 6-(2-methyl-2-propenoate) (9CI) (CA INDEX NAME)

Absolute stereochemistry.

L51 ANSWER 8 OF 8 HCAPLUS COPYRIGHT 2004 ACS on STN

AN 1989:439714 HCAPLUS

DN 111:39714

TI Selective modification of unprotected mono- and disaccharides through ester and ether bonds

AU Beraud, Pierre; Bourhim, Abdelatif; Czernecki, Stanislas; Krausz, Pierre

- Lab. Chim. Glucides, Univ. Pierre et Marie Curie, Paris, 75005, Fr. CS
- Tetrahedron Letters (1989), 30(3), 325-6 CODEN: TELEAY; ISSN: 0040-4039
- DTJournal
- LΑ English
- OS CASREACT 111:39714
- Treatment of unprotected Me $\alpha\text{-D-glucopyranoside}$, N-acetylglucosamine AΒ and maltose with methacrylic acid, 1-adamantanecarboxylic acid, 2',7'-dichlorofluorescein, or phenol in the presence of Ph3P and di-Et azodicarboxylate gave C-6 (or C-6' for maltose) esterified or etherified sugars in acceptable yields.
- CC 33-3 (Carbohydrates)
- glucopyranoside ester ether; glucosamine acetyl ester ether; maltose ST acetyl ester ether; methacrylate ester sugar; adamantanecarboxylate ester sugar; fluorescein dichloro ester sugar; phenyl ether sugar
- 69-79-4, Maltose 97-30-3, Methyl α -D-glucopyranoside IT7512-17-6, N-Acetylglucosamine

RL: RCT (Reactant); RACT (Reactant or reagent) (esterification or phenylation of)

IT 121408-61-5P 121408-62-6P 121408-63-7P 121408-64-8P

121408-65-9P 121408-66-0P 121408-67-1P 121408-68-2P 121408-69-3P 121424-62-2P

121430-04-4P 121469-97-4P

RL: SPN (Synthetic preparation); PREP (Preparation) (preparation of)

IT 121408-64-8P

> RL: SPN (Synthetic preparation); PREP (Preparation) (preparation of)

RN 121408-64-8 HCAPLUS

D-Glucose, 2-(acetylamino)-2-deoxy-, 6-(2-methyl-2-propenoate) (9CI) CN INDEX NAME)

Absolute stereochemistry.

=> => D QUE L60 L43 STR

44 42 40

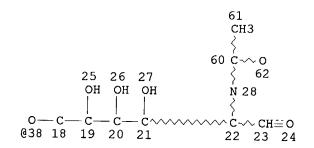
Page 1-A

Page 2-A
VAR G1=50/59/58/57/56/53/54/55/52/38/47
VAR G2=OH/29/NH2
VAR G3=35/22
NODE ATTRIBUTES:
DEFAULT MLEVEL IS ATOM
DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES: RING(S) ARE ISOLATED OR EMBEDDED NUMBER OF NODES IS 58

STEREO ATTRIBUTES: NONE L45 11708 SEA FILE=REGISTRY SSS FUL L43 L46 STR

OH 58



VAR G1=50/38 NODE ATTRIBUTES: DEFAULT MLEVEL IS ATOM DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES: RING(S) ARE ISOLATED OR EMBEDDED NUMBER OF NODES IS 35

STEREO ATTRIBUTES: NONE

L49	7 SEA FILE=REGISTRY SSS FUL L46
L51	8 SEA FILE=HCAPLUS ABB=ON L49
L52	6476 SEA FILE=HCAPLUS ABB=ON L45
L53	2775 SEA FILE=HCAPLUS ABB=ON L52(L)(PREP OR IMF OR SPN)/RL
L54	436 SEA FILE=HCAPLUS ABB=ON L53 AND OLIG?
L55	191 SEA FILE=HCAPLUS ABB=ON L53(L)THU/RL
L56	11 SEA FILE=HCAPLUS ABB=ON L54 AND L55
L57	81 SEA FILE=HCAPLUS ABB=ON L53 AND MONOMER?
L58	2 SEA FILE=HCAPLUS ABB=ON L55 AND L57
L59	13 SEA FILE=HCAPLUS ABB=ON L56 OR L58
L60	12 SEA FILE=HCAPLUS ABB=ON L59 NOT L51 / O A Ald

=> D L60 BIB ABS IND HITSTR 1-12

L60 ANSWER 1 OF 12 HCAPLUS COPYRIGHT 2004 ACS on STN

AN 2004:596823 HCAPLUS

DN 141:271387

TI Cognitive improving and cerebral protective effects of acylated oligosaccharides in Polygala tenuifolia

AU Ikeya, Yukinobu; Takeda, Shigefumi; Tunakawa, Mitsuo; Karakida, Humito; Toda, Kouin; Yamaguchi, Takuji; Aburada, Masaki

CS Research Division, Tsumura and Co., Ami, 300-1192, Japan

SO Biological & Pharmaceutical Bulletin (2004), 27(7), 1081-1085 CODEN: BPBLEO; ISSN: 0918-6158

PB Pharmaceutical Society of Japan

DT Journal

LA English

AB We studied the cognitive improving and cerebral protective constituents in

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the roots of Polygala tenuifolia WILLDENOW, a well-known Chinese traditional medicine prescribed for amnesia, neurasthenia, palpitation, noctural emission and insomnia. Tenuifoliside B (1), which is one of the acylated oligosaccharides in the roots of P. tenuifolia, showed the cerebral protective effect on potassium cyanide (KCN)-induced anoxia in mice, widely used as an animal model for cerebrovascular disease, and also had an ameliorative effect on the scopolamine-induced impairment of performance in passive avoidance task in rats. Compound 1 significantly enhanced oxotremorine-induced tremors in mice, suggesting that it ameliorated the scopolamine-induced impairment of passive avoidance response by enhancing the cholinergic system. These findings show that compound 1 has cognitive improving and cerebral protective effects. 1-11 (Pharmacology) cognition neuroprotection acylated oligosaccharide Polygala tenuifolia Nervous system (cholinergic; cognitive improving and cerebral protective effects of acylated oligosaccharides in Polygala tenuifolia) Cognition enhancers Polygala tenuifolia (cognitive improving and cerebral protective effects of acylated oligosaccharides in Polygala tenuifolia) Natural products, pharmaceutical Oligosaccharides, biological studies RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses) (cognitive improving and cerebral protective effects of acylated oligosaccharides in Polygala tenuifolia) Cytoprotective agents (neuroprotective; cognitive improving and cerebral protective effects of acylated oligosaccharides in Polygala tenuifolia) 139726-35-5P, Tenuifoliside a 139726-36-6P, Tenuifoliside B 139726-37-7P, Tenuifoliside c 139891-98-8P 757965-35-8P RL: DMA (Drug mechanism of action); NPO (Natural product occurrence); PAC (Pharmacological activity); PUR (Purification or recovery); THU (Therapeutic use); BIOL (Biological study); OCCU (Occurrence); PREP (Preparation); USES (Uses) (cognitive improving and cerebral protective effects of acylated oligosaccharides in Polygala tenuifolia) 139726-35-5P, Tenuifoliside a 139726-36-6P, Tenuifoliside B 139726-37-7P, Tenuifoliside c 139891-98-8P 757965-35-8P RL: DMA (Drug mechanism of action); NPO (Natural product occurrence); PAC (Pharmacological activity); PUR (Purification or recovery); THU (Therapeutic use); BIOL (Biological study); OCCU (Occurrence); PREP (Preparation); USES (Uses) (cognitive improving and cerebral protective effects of acylated oligosaccharides in Polygala tenuifolia) 139726-35-5 HCAPLUS α -D-Glucopyranoside, 3-O-[(2E)-1-oxo-3-(3,4,5-trimethoxyphenyl)-2propenyl]- β -D-fructofuranosyl, 6-(4-hydroxybenzoate) (9CI) (CA INDEX

MeO

0Me

OMe

RN 139726-36-6 HCAPLUS CN α -D-Glucopyranoside, 3-O-[(2E)-3-(4-hydroxy-3,5-dimethoxyphenyl)-1-oxo-2-propenyl]- β -D-fructofuranosyl, 6-(4-hydroxybenzoate) (9CI) (CA INDEX NAME)

RN 139726-37-7 HCAPLUS

CN α -D-Glucopyranoside, 3-O-[(2E)-1-oxo-3-(3,4,5-trimethoxyphenyl)-2-propenyl]- β -D-fructofuranosyl, 6-[(2E)-3-(4-hydroxy-3,5-dimethoxyphenyl)-2-propenoate] (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-). Double bond geometry as shown.

PAGE 1-A

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RN 139891-98-8 HCAPLUS

CN α -D-Glucopyranoside, 3-O-[(2E)-3-(4-hydroxy-3,5-dimethoxyphenyl)-1-oxo-2-propenyl]- β -D-fructofuranosyl, 6-[(2E)-3-(4-hydroxy-3,5-dimethoxyphenyl)-2-propenoate] (9CI) (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.

PAGE 1-A

PAGE 2-A

RN 757965-35-8 HCAPLUS CN INDEX NAME NOT YET ASSIGNED

Absolute stereochemistry. Double bond geometry as shown.

PAGE 1-A

PAGE 2-A

OMe

RE.CNT THERE ARE 29 CITED REFERENCES AVAILABLE FOR THIS RECORD 29 ALL CITATIONS AVAILABLE IN THE RE FORMAT

ANSWER 2 OF 12 HCAPLUS COPYRIGHT 2004 ACS on STN L60

ΑN 2002:935667 HCAPLUS

DN 139:138557

Synthesis of water-soluble polymeric prodrugs possessing 4-methylcatechol ΤI derivatives by mechanochemical solid-state copolymerization and nature of drug release

Kondo, Shin-ichi; Sasai, Yasushi; Kuzuya, Masayuki; Furukawa, Shoei ΑU Laboratory of Pharmaceutical Physical Chemistry, Gifu Pharmaceutical CS

University, Gifu, 502-8585, Japan

Chemical & Pharmaceutical Bulletin (2002), 50(11), 1434-1438 SO CODEN: CPBTAL; ISSN: 0009-2363

Pharmaceutical Society of Japan PB

DT Journal

LΑ English

In this study we synthesized the water-soluble polymeric prodrugs possessing AΒ a 4-methylcatechol (4MC) derivative as a side chain by mechanochem. solid-state copolymn. 1-Benzoyl-4-methylcatechol (Bz4MC) was selected as a model compound of 4MC, and its methacryloyl derivative (1) was synthesized. 6-O-Methacryloyl-D-galactose (2) was also prepared as a water-soluble monomer. The mechanochem. solid-state copolymn. of 1 and 2 was

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carried out to obtain the water-soluble polymeric prodrug possessing the Bz4MC as a side chain. The mechanochem. copolymn. of 1 and 2 proceeded to completion, and the polymeric produced possessed a narrow mol. weight distribution. Three kinds of polymeric prodrugs, whose compns. were different from one another, were hydrolyzed in vitro. The hydrolysis of these polymeric prodrugs proceeded to completion. The rate consts. of hydrolysis decreased with increasing the mole fraction of 1 in polymeric prodrug. It was suggested that the rate constant of hydrolysis could be controlled by the composition, the mole fraction of 1 in the polymeric prodrug. 63-6 (Pharmaceuticals) Section cross-reference(s): 33, 35 methylcathecol polymer prodrug prepn hydrolysis sustained release Polymer degradation (hydrolytic; synthesis of water-soluble methylcatechol containing polymeric prodrugs by mechanochem. solid-state copolymn. for sustained drug release) Blood-brain barrier (preparation of water-soluble methylcatechol containing polymeric prodrugs crossing of blood-brain barrier and induction of nerve growth factor) Drug delivery systems (prodrugs; synthesis of water-soluble methylcatechol containing polymeric prodrugs by mechanochem. solid-state copolymn. for sustained drug release) Drug delivery systems (sustained-release; synthesis of water-soluble methylcatechol containing polymeric prodrugs by mechanochem. solid-state copolymn. for sustained drug release) Hydrolysis Polymer degradation kinetics (synthesis of water-soluble methylcatechol containing polymeric prodrugs by mechanochem. solid-state copolymn. for sustained drug release) 9061-61-4, Nerve growth factor RL: BSU (Biological study, unclassified); BIOL (Biological study) (preparation of water-soluble methylcatechol containing polymeric prodrugs crossing of blood-brain barrier and induction of nerve growth factor) 452-86-8 RL: BSU (Biological study, unclassified); FMU (Formation, unclassified); BIOL (Biological study); FORM (Formation, nonpreparative) (synthesis of water-soluble methylcatechol containing polymeric prodrugs by mechanochem. solid-state copolymn. for sustained drug release) 65-85-0, Benzoic acid, formation (nonpreparative) RL: FMU (Formation, unclassified); FORM (Formation, nonpreparative) (synthesis of water-soluble methylcatechol containing polymeric prodrugs by mechanochem. solid-state copolymn. for sustained drug release) 565468-40-8P RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation) (synthesis of water-soluble methylcatechol containing polymeric prodrugs by mechanochem. solid-state copolymn. for sustained drug release) 565468-39-5P RL: PRP (Properties); SPN (Synthetic preparation); THU

Page 24

(Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses) (synthesis of water-soluble methylcatechol containing polymeric prodrugs by

mechanochem. solid-state copolymn. for sustained drug release) 920-46-7, Methacryloyl chloride 4064-06-6, 1,2:3,4-Di-O-isopropylidene- α -D-galactopyranose 30674-80-7 65109-84-4

RL: RCT (Reactant); RACT (Reactant or reagent)

(synthesis of water-soluble methylcatechol containing polymeric prodrugs by mechanochem. solid-state copolymn. for sustained drug release)

16926-94-6P, 6-O-Methacryloyl-D-galactose 565468-38-4P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP

(Preparation); RACT (Reactant or reagent)

(synthesis of water-soluble methylcatechol containing polymeric prodrugs by mechanochem. solid-state copolymn. for sustained drug release)

IT 565468-39-5P

IT

RL: PRP (Properties); SPN (Synthetic preparation); THU

(Therapeutic use); BIOL (Biological study); PREP

(Preparation); USES (Uses)

(synthesis of water-soluble methylcatechol containing polymeric prodrugs by mechanochem. solid-state copolymn. for sustained drug release)

RN 565468-39-5 HCAPLUS

CN D-Galactose, 6-(2-methyl-2-propenoate), polymer with 2-[[[2-(benzoyloxy)-5-methylphenoxy]carbonyl]amino]ethyl 2-methyl-2-propenoate (9CI) (CA INDEX NAME)

CM 1

CRN 565468-38-4 CMF C21 H21 N O6

CM 2

CRN 16926-94-6 CMF C10 H16 O7

Absolute stereochemistry.

IT 16926-94-6P, 6-O-Methacryloyl-D-galactose

RL: RCT (Reactant); SPN (Synthetic preparation); PREP

(Preparation); RACT (Reactant or reagent)

(synthesis of water-soluble methylcatechol containing polymeric prodrugs by mechanochem. solid-state copolymn. for sustained drug release)

RN 16926-94-6 HCAPLUS

CN D-Galactose, 6-(2-methyl-2-propenoate) (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RE.CNT 35 THERE ARE 35 CITED REFERENCES AVAILABLE FOR THIS RECORD ALL CITATIONS AVAILABLE IN THE RE FORMAT

L60 ANSWER 3 OF 12 HCAPLUS COPYRIGHT 2004 ACS on STN

AN 2002:813343 HCAPLUS

DN 139:12215

TI Biodegradable polymer networks based on **oligolactide** macromers: synthesis, properties and biomedical applications

AU Schnabelrauch, Matthias; Vogt, Sebastian; Larcher, Yves; Wilke, Ingo

CS INNOVENT Technologieentwicklung e. V., Jena, 07745, Germany

SO Biomolecular Engineering (2002), 19(2-6), 295-298 CODEN: BIENFV; ISSN: 1389-0344

PB Elsevier Science B.V.

DT Journal

LA English

Novel linear and star-shaped oligolactide macromers were synthesized by ring-opening oligomerization of L-lactide in the presence of suitable initiators (di- and polyols, amino acid esters) and subsequent end group-functionalization of the formed oligolactides with methacrylate moities. The obtained liquid macromers are valuable building blocks for the preparation of biocompatible polymer networks. Based on these macromers, the fabrication and the material properties including biodegrdn. behavior of highly porous polymer network devices will be described. The application of these materials as resorbable scaffolds in tissue engineering will be discussed.

CC 63-8 (Pharmaceuticals)

Section cross-reference(s): 35

ST lactide oligomer prepn biodegradable

IT Polymer degradation

(hydrolytic; synthesis, properties and biomedical applications of biodegradable polymer networks based on **oligolactide** macromers)

IT Polyesters, biological studies

RL: PRP (Properties); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses) (lactone-based; synthesis, properties and biomedical applications of biodegradable polymer networks based on oligolactide

macromers)

IT Osteoblast

(synthesis, properties and biomedical applications of biodegradable polymer networks based on **oligolactide** macromers)

IT 327048-38-4P 327050-12-4P **532932-37-9P** 532933-09-8P

RL: PRP (Properties); SPN (Synthetic preparation); THU

(Therapeutic use); BIOL (Biological study); PREP

(Preparation); USES (Uses)

(oligomeric; synthesis, properties and biomedical applications of biodegradable polymer networks based on

oligolactide macromers)

94-09-7DP, Ethyl p-aminobenzoate, oligolactide methacrylate amide derivs. 459-73-4DP, Glycine ethyl ester, oligolactide methacrylate amide derivs. 920-46-7DP, Methacryloyl chloride, lactide oligomers end-capped 4117-33-3DP, Lysine ethyl ester, oligolactide methacrylate amide derivs. 532932-33-5DP, amino acid amide derivs. 532932-34-6P 532932-35-7P 532932-36-8P RL: PRP (Properties); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses) (synthesis, properties and biomedical applications of biodegradable polymer networks based on oligolactide macromers)

IT 532932-37-9P

RL: PRP (Properties); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(oligomeric; synthesis, properties and biomedical applications of biodegradable polymer networks based on oligolactide macromers)

RN 532932-37-9 HCAPLUS

CN Poly[oxy[(1S)-1-methyl-2-oxo-1,2-ethanediyl]], α -(2-methyl-1-oxo-2-propenyl)- ω -hydroxy-, ester with methyl β -D-galactopyranoside (4:1) (9CI) (CA INDEX NAME)

PAGE 1-A

RE.CNT 10 THERE ARE 10 CITED REFERENCES AVAILABLE FOR THIS RECORD ALL CITATIONS AVAILABLE IN THE RE FORMAT

Page 28

L60 ANSWER 4 OF 12 HCAPLUS COPYRIGHT 2004 ACS on STN

AN 2002:593566 HCAPLUS

DN 138:326353

ΤI Characterisation of new oligoglycosidic compounds in two Chinese medicinal herbs

Apers, Sandra; Huang, Ying; Van Miert, Sabine; Dommisse, Roger; Vanden ΑU Berghe, Dirk; Pieters, Luc; Vlietinck, Arnold

Department of Pharmaceutical Sciences, University of Antwerp, Antwerp, CS B-2610, Belg.

SO Phytochemical Analysis (2002), 13(4), 202-206 CODEN: PHANEL; ISSN: 0958-0344

PR John Wiley & Sons Ltd.

Journal DT

LΑ English

A series of caffeic acid derivs. (3,5-dicaffeoyl-quinic acid, AΒ 3,4-dicaffeoyl-quinic acid, and 4,5-dicaffeoyl-quinic acid), and the new compound β , 3, 4-trihydroxyphenethyl-0-[β -apiofuranosyl-(1 \rightarrow 4)- α -rhamnopyranosyl-(1 \rightarrow 3)]-(4-O-caffeoyl)- β glucopyranoside (wedelosin), as well as three known flavonoid glycosides (quercetin 3-0- β -glucoside, kaempferol 3-0- β -apiosyl-(1-2)- β -glucoside, and astragalin or kaempferol 3-0- β -glucoside) were isolated from the Chinese medicinal herb Wedelia chinensis. Wedelosin showed an inhibitory activity on both the classical and the alternative activation pathway of the complement system. Another Chinese medicinal herb, Kyllinga brevifolia, yielded two known flavonoid glycosides [kaempferol 3-0- β -apiosyl-(1-2)- β -glucoside and isorhamnetin 3-0- β -apiosyl-(1-2)- β -glucoside], and a new quercetin triglycoside [quercetin 3-0- β -apiofuranosyl-(1 \rightarrow 2)- β glucopyranoside $7\text{-}0\text{-}\alpha\text{-}\text{rhamnopyranoside}]$. The latter compound showed a moderate anti-viral activity.

CC 63-4 (Pharmaceuticals) Section cross-reference(s): 1, 11

Wedelia Kyllinga Chinese medicinal herb oligoglycoside ST

IT

RL: PAC (Pharmacological activity); PUR (Purification or recovery); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES

(flavonoid; oligoglycosidic compds. in Wedelia and Kyllinga and their pharmacol. activity)

ITComplement

RL: BSU (Biological study, unclassified); BIOL (Biological study) (inhibitors; oligoglycosidic compds. in Wedelia and Kyllinga

```
and their pharmacol. activity)
 TΤ
      Glycosides
      RL: PAC (Pharmacological activity); PUR (Purification or recovery); THU
      (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES
         (oligoglycosides; oligoglycosidic compds. in
         Wedelia and Kyllinga and their pharmacol. activity)
      Antiviral agents
      Kyllinga brevifolia
      Wedelia chinensis
         (oligoglycosidic compds. in Wedelia and Kyllinga and their
         pharmacol. activity)
      Natural products, pharmaceutical
      RL: PAC (Pharmacological activity); PUR (Purification or recovery); THU
      (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES
      (Uses)
         (oligoglycosidic compds. in Wedelia and Kyllinga and their
         pharmacol. activity)
IT
     New natural products
         (wedelosin (oligoglycoside))
IT
     480-10-4P, Astragalin
                              482-35-9P, Quercetin 3-0-\beta-glucoside
     2450-53-5P, 3,5-Dicaffeoylquinic acid
                                               14534-61-3P, 3,4-Dicaffeoyl-quinic
             57378-72-0P, 4,5-Dicaffeoyl-quinic acid
                                                        99816-59-8P
     512172-31-5P
                     512172-32-6P 514807-90-0P, Wedelosin
     RL: PAC (Pharmacological activity); PUR (Purification or recovery);
     THU (Therapeutic use); BIOL (Biological study); PREP
      (Preparation); USES (Uses)
         (oligoglycosidic compds. in Wedelia and Kyllinga and their
        pharmacol. activity)
ΙT
     514807-90-0P, Wedelosin
     RL: PAC (Pharmacological activity); PUR (Purification or recovery);
     THU (Therapeutic use); BIOL (Biological study); PREP
     (Preparation); USES (Uses)
         (oligoglycosidic compds. in Wedelia and Kyllinga and their
        pharmacol. activity)
RN
     514807-90-0 HCAPLUS
CN
     \beta-D-Glucopyranoside, 2-(3,4-dihydroxyphenyl)-2-hydroxyethyl
     O-D-apio-\beta-D-furanosyl-(1\rightarrow4)-O-6-deoxy-\alpha-L-
     mannopyranosyl-(1\rightarrow 3)-, 4-[(2E)-3-(3,4-dihydroxyphenyl)-2-
     propenoate] (9CI) (CA INDEX NAME)
Absolute stereochemistry.
Double bond geometry as shown.
```

Currently available stereo shown.

RE.CNT 13 THERE ARE 13 CITED REFERENCES AVAILABLE FOR THIS RECORD ALL CITATIONS AVAILABLE IN THE RE FORMAT

L60 ANSWER 5 OF 12 HCAPLUS COPYRIGHT 2004 ACS on STN

AN 2002:539475 HCAPLUS

DN 137:103885

TI Inhibition of NF-κB by triterpene compositions

IN Gutterman, Jordan U.; Haridas, Valsala

PA Research Development Foundation, USA

SO PCT Int. Appl., 349 pp.

CODEN: PIXXD2

DT Patent

LA FAN.		glish '1	1															
	PATENT NO.				KIND		DATE		APPLICATION NO.				DATE					
PI		WO 2002055016 WO 2002055016		A3		20030904							-					
		W:	AE,	AG,	AL,	AM,	AT,	AU,	AZ,	BA,	BB,	BG,	BR,	BY,	BZ,	CA,	CH,	CN,
			GM.	HR.	ни	TD	DE,	DK,	DM,	DZ,	EC,	EE,	ES,	FI,	GB,	GD,	GE,	GH,
			LS,	LT,	LU.	LV.	MA.	MD.	MG.	MK	KE, MN,	MM.	MY	KK,	KZ,	LC,	LK,	LR,
			PL,	PT,	RO,	RU,	SD,	SE.	SG.	SI.	SK,	SL.	TIA,	TM	NO,	ny.	OM,	PH,
			UG,	UZ,	VN,	YU,	ZA,	ZM,	ZW,	AM,	AZ,	BY.	KG.	K7.	MD.	RII	т.т	UΑ,
		RW:	GH,	GM,	KE,	LS,	MW,	MZ,	SD,	SL,	SZ,	TZ,	UG.	ZM.	2.W.	AT.	BE.	CH
			CY,	DE,	DK,	ES,	FI,	FR,	GB,	GR,	IE,	IT,	LU.	MC.	NT.	PТ.	SE.	TΡ
		1055	Br,	ΒJ,	CF,	CG,	CI,	CM,	GA,	GN.	GO.	GW.	MT.	MR.	NF.	SM	תים	Tr.C
	EP	1355	642			A2		2003	1029		EP 2	001-	9931	64		20	nn111	119
		к:	AT,	BE,	CH,	DE,	DK,	ES,	FR,	GB,	GR,	IT,	LI,	LU,	NL,	SE,	MC,	PT,
	TD	2004	15, 51711	SI,	LT,	LV,	FI,	RO,	MK,	CY,	AL,	TR						
PDAT	UP	2004 2000	-340. 311T	31 710 D		T2					JP 20	002-	5557	53		20	00111	119
rivai	HS	2001	-249. -3226	710P		P		2000	1117									
	พด	2001	_UZZC	3286		E W		2001:	J91/									
os		RPAT				VV		ZUU1.	1119									
AB		inv				10c m	no+h	oda .	Fau +	. h								

AB The invention provides methods for the inhibition of inflammation by providing, to a cell, in need thereof, monoterpene compns. that inhibit NF- κ B. These compns. may also contain a carrier moiety that renders the monoterpene composition membrane permeable. The carrier may include

triterpenoid moieties, sugars, lipids, or even addnl. monoterpenoid moieties. The composition can also contain addnl. chemical functionalities. Methods for using these compds. to prevent and treat a wide range of inflammatory conditions, especially, premalignant inflammatory conditions are described.

IC ICM A61K

CC 1-7 (Pharmacology)

Section cross-reference(s): 11, 63

ST NFkappaB inhibition triterpene antiinflammatory agent

IT Esophagus, disease

(Barrett's syndrome, treatment; inhibition of NF- κB by triterpene compns. for treatment of inflammatory conditions and use of carriers which make the compds. membrane permeable)

IT Transcription factors

RL: BSU (Biological study, unclassified); BIOL (Biological study) (NF- κ B (nuclear factor of κ light chain gene enhancer in B-cells); inhibition of NF- κ B by triterpene compns. for treatment of inflammatory conditions and use of carriers which make the compds. membrane permeable)

IT Tumor necrosis factors

RL: BSU (Biological study, unclassified); BIOL (Biological study) (NF-kB induction by; inhibition of NF-kB by triterpene compns. for treatment of inflammatory conditions and use of carriers which make the compds. membrane permeable)

IT Gene, animal

RL: BSU (Biological study, unclassified); BIOL (Biological study) (TP53, decrease of mutations in; inhibition of NF-kB by triterpene compns. for treatment of inflammatory conditions and use of carriers which make the compds. membrane permeable)

IT Keratosis

(actinic, treatment; inhibition of NF- κB by triterpene compns. for treatment of inflammatory conditions and use of carriers which make the compds. membrane permeable)

IT Ploidy

(aneuploidy, suppression of; inhibition of NF- κ B by triterpene compns. for treatment of inflammatory conditions and use of carriers which make the compds. membrane permeable)

IT Antiarteriosclerotics

(antiatherosclerotics; inhibition of NF- κB by triterpene compns. for treatment of inflammatory conditions and use of carriers which make the compds. membrane permeable)

IT Drug delivery systems

(carriers; inhibition of NF- κB by triterpene compns. for treatment of inflammatory conditions and use of carriers which make the compds. membrane permeable)

IT Carbohydrates, biological studies

Lipids, biological studies

RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses) (carriers; inhibition of NF-kB by triterpene compns. for treatment of inflammatory conditions and use of carriers which make the compds. membrane permeable)

IT Pancreas, disease

(chronic pancreatitis, treatment; inhibition of NF- κB by triterpene compns. for treatment of inflammatory conditions and use of carriers which make the compds. membrane permeable)

IT Acacia victoriae

(constituents of; inhibition of NF- κB by triterpene compns. for treatment of inflammatory conditions and use of carriers which make the

ZEMEL 10/812838 10/19/04 Page 32 compds. membrane permeable) ΙT p53 (protein) RL: BSU (Biological study, unclassified); BIOL (Biological study) (decrease of mutations in; inhibition of NF-kB by triterpene compns. for treatment of inflammatory conditions and use of carriers which make the compds. membrane permeable) ΙT Drug delivery systems (diluents; inhibition of NF- κ B by triterpene compns. for treatment of inflammatory conditions and use of carriers which make the compds. membrane permeable) Biological transport IT (drug; inhibition of NF- κB by triterpene compns. for treatment of inflammatory conditions and use of carriers which make the compds. membrane permeable) ITIntestine, neoplasm (familial polyposis, treatment; inhibition of NF- κB by triterpene compns. for treatment of inflammatory conditions and use of carriers which make the compds. membrane permeable) IT Apoptosis (induction of; inhibition of NF- κB by triterpene compns. for treatment of inflammatory conditions and use of carriers which make the compds. membrane permeable) ITIntestine, disease (inflammatory, treatment; inhibition of NF- κB by triterpene compns. for treatment of inflammatory conditions and use of carriers which make the compds. membrane permeable) IT Anti-Alzheimer's agents Anti-inflammatory agents Antiarthritics Anticholesteremic agents Antiparkinsonian agents Antirheumatic agents Antitumor agents Cell cycle Cell membrane Drug delivery systems Drug delivery systems Human Inflammation Mitochondria Signal transduction, biological (inhibition of NF- κB by triterpene compns. for treatment of inflammatory conditions and use of carriers which make the compds. membrane permeable) ΙT Monoterpenes Triterpenes RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses) (inhibition of NF- κB by triterpene compns. for treatment of inflammatory conditions and use of carriers which make the compds. membrane permeable) Transformation, neoplastic

TΤ

(inhibition of; inhibition of NF- κB by triterpene compns. for treatment of inflammatory conditions and use of carriers which make the compds. membrane permeable)

IT Drug delivery systems

(injections; inhibition of NF- κB by triterpene compns. for treatment of inflammatory conditions and use of carriers which make the compds. membrane permeable)

IT Plant tissue culture

(of Acacia victoriae; inhibition of NF- κ B by triterpene compns. for treatment of inflammatory conditions and use of carriers which make the compds. membrane permeable)

IT Buffers

Solvents

(of drug delivery systems; inhibition of NF- κB by triterpene compns. for treatment of inflammatory conditions and use of carriers which make the compds. membrane permeable)

IT Drug delivery systems

(oily; inhibition of NF- κB by triterpene compns. for treatment of inflammatory conditions and use of carriers which make the compds. membrane permeable)

IT Drug delivery systems

(ointments, creams; inhibition of NF-kB by triterpene compns. for treatment of inflammatory conditions and use of carriers which make the compds. membrane permeable)

IT Drug delivery systems

(oral; inhibition of NF- κ B by triterpene compns. for treatment of inflammatory conditions and use of carriers which make the compds. membrane permeable)

IT Inflammation

(premalignant inflammatory disease; inhibition of NF- κ B by triterpene compns. for treatment of inflammatory conditions and use of carriers which make the compds. membrane permeable)

IT Prostate gland, disease

(prostatitis, chronic, treatment; inhibition of NF- κB by triterpene compns. for treatment of inflammatory conditions and use of carriers which make the compds. membrane permeable)

IT Multiple sclerosis

(therapeutic agents; inhibition of NF- κ B by triterpene compns. for treatment of inflammatory conditions and use of carriers which make the compds. membrane permeable)

IT Drug delivery systems

(topical; inhibition of NF-kB by triterpene compns. for treatment of inflammatory conditions and use of carriers which make the compds. membrane permeable)

IT Alzheimer's disease

Atherosclerosis

Neoplasm

Osteoarthritis

Parkinson's disease

Rheumatoid arthritis

(treatment; inhibition of NF- κB by triterpene compns. for treatment of inflammatory conditions and use of carriers which make the compds. membrane permeable)

IT 169592-56-7, Caspase 3

RL: BSU (Biological study, unclassified); BIOL (Biological study) (activation; inhibition of NF-kB by triterpene compns. for treatment of inflammatory conditions and use of carriers which make the compds. membrane permeable)

IT 9055-67-8, Poly(ADP-ribose)polymerase

RL: BSU (Biological study, unclassified); BIOL (Biological study) (degradation; inhibition of NF-kB by triterpene compns. for treatment of inflammatory conditions and use of carriers which make the compds. membrane permeable)

IT 125978-95-2, Nitric oxide synthase

ΙT

ΙT

IT

IT

IT

Page 34 RL: BSU (Biological study, unclassified); BIOL (Biological study) (inducible, inhibition of; inhibition of NF-κB by triterpene compns. for treatment of inflammatory conditions and use of carriers which make the compds. membrane permeable) 115926-52-8, PI3 kinase 148640-14-6, AKT kinase RL: BSU (Biological study, unclassified); BIOL (Biological study) (inhibition of NF- κB by triterpene compns. for treatment of inflammatory conditions and use of carriers which make the compds. membrane permeable) 1962-14-7DP, Acacic acid, oligo derivs. 442568-50-5DP, oligo derivs. 442568-51-6DP, oligo derivs. RL: NPO (Natural product occurrence); PAC (Pharmacological activity); PUR (Purification or recovery); THU (Therapeutic use); BIOL (Biological study); OCCU (Occurrence); PREP (Preparation); USES (Uses) (inhibition of NF- κB by triterpene compns. for treatment of inflammatory conditions and use of carriers which make the compds. membrane permeable) 329900-75-6, Cyclooxygenase 2 RL: BSU (Biological study, unclassified); BIOL (Biological study) (inhibition of; inhibition of NF- κB by triterpene compns. for treatment of inflammatory conditions and use of carriers which make the compds. membrane permeable) 57-88-5, Cholesterol, biological studies RL: BSU (Biological study, unclassified); BIOL (Biological study) (metabolism of; inhibition of NF- κB by triterpene compns. for treatment of inflammatory conditions and use of carriers which make the compds. membrane permeable) 9007-43-6, Cytochrome C, biological studies RL: BSU (Biological study, unclassified); BIOL (Biological study) (mitochondrial release; inhibition of NF-kB by triterpene compns. for treatment of inflammatory conditions and use of carriers which make the compds. membrane permeable) 442992-55-4 442992-56-5 442992-57-6 442992-58-7 442992-59-8 442992-60-1 442992-61-2 442992-62-3 442992-63-4 RL: PRP (Properties) (unclaimed nucleotide sequence; inhibition of NF- κB by triterpene compns.) 442568-50-5DP, oligo derivs. 442568-51-6DP, oligo derivs. RL: NPO (Natural product occurrence); PAC (Pharmacological activity); PUR (Purification or recovery); THU (Therapeutic use); BIOL (Biological study); OCCU (Occurrence); PREP (Preparation); USES (inhibition of NF- κB by triterpene compns. for treatment of

inflammatory conditions and use of carriers which make the compds. membrane permeable) 442568-50-5 HCAPLUS

Olean-12-en-28-oic acid, 3,16-dihydroxy-21-[[(2E,6S)-6-[[4-0-[(2E)-6hydroxy-2-(hydroxymethyl)-1-oxo-2,7-octadienyl]-D-glucopyranosyl]oxy]-2-(hydroxymethyl)-1-oxo-2,7-octadienyl]oxy]-, $(3\beta,16\alpha,21\beta)$ -(9CI) (CA INDEX NAME)

Absolute stereochemistry. Double bond geometry as shown.

PAGE 1-B

RN442568-51-6 HCAPLUS

Olean-12-en-28-oic acid, 3,16-dihydroxy-21-[[(2E,6S)-2-(hydroxymethyl)-6-CN $\begin{tabular}{l} [[4-O-[(2E)-6-hydroxy-2-methyl-1-oxo-2,7-octadienyl]-D-glucopyranosyl]oxy]-loxo-2,7-octadienyl[oxy]-loxo-2,7-octadienyl[oxy]-loxo-2,7-octadienyl[oxy]-loxo-2,7-octadienyl[oxy]-loxo-2,7-octadienyl[oxy]-loxo-2,7-octadienyl[oxy]-loxo-2,7-octadienyl[oxy]-loxo-2,7-octadienyl[oxy]$ NAME)

Absolute stereochemistry. Double bond geometry as shown.

PAGE 1-B

L60 ANSWER 6 OF 12 HCAPLUS COPYRIGHT 2004 ACS on STN

AN 1999:69918 HCAPLUS

DN 130:95779

TI Synthetic glycoamines and methods for their use that affect cell adhesion, inhibit cancer cell metastasis, and induce apoptosis

IN Glinskii, Guennadi Victor

PA USA

SO U.S., 18 pp., Cont.-in-part of U.S. 5,629,412. CODEN: USXXAM

DT Patent

LA English

FAN CNT 3

T TATA	· CIVI 3						
	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE		
PI	US 5864024 US 5629412	- - А А	19990126 19970513	US 1996-758048 US 1994-273506	19961127 19940711		
	CA 2179899 CA 2179899	AA C	19960125 20000523	CA 1995-2179899	19950612		
	CA 2272992 WO 9823625	AA A1	19980604 19980604	CA 1997-2272992 WO 1997-US21604	19971124 19971124		

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W: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE,
              DK, EE, ES, FI, GB, GE, GH, HU, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL,
              PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, UZ, VN, YU, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM
          RW: GH, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, DE, DK, ES, FI, FR,
              GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA,
              GN, ML, MR, NE, SN, TD, TG
     AU 9874102
                           A1
                                  19980622
                                              AU 1998-74102
                                                                       19971124
     AU 738495
                           В2
                                  20010920
     EP 944639
                           A1
                                  19990929
                                              EP 1997-949612
                                                                       19971124
          R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, NL, SE, IE
     JP 2001506604
                          Т2
                                  20010522
                                              JP 1998-524820
                                                                       19971124
PRAI US 1994-273506
                           Α2
                                  19940711
     US 1996-758048
                           Α
                                  19961127
     WO 1997-US21604
                           W
                                  19971124
AB
     A class of mols, and methods that alter cell adhesion, inhibit cancer
     metastasis, and induce apoptosis. A method according to the present
     invention comprises bringing cells into contact with compds. that
     essentially consist of an amino acid linked to a carbohydrate wherein the
     amino acid and the carbohydrate are linked to form a compound chosen from
     the group consisting of Schiff bases, N-glycosides, esters, and Amadori
     products. The carbohydrate is preferably a monosaccharide or a small
     oligosaccharide. The carbohydrate and amino acid sub-units may be
     chemical modified. For example, the amino acid may be modified by covalently
     bonding other groups to the amino group, carboxyl group, or side chain
     group of the amino acid. The carbohydrate sub-unit is preferably a
     pentose such as arabinose, xylose, ribose, ribulose, a hexose such as
     fructose, deoxyfructose, galactose, glucose, mannose, tagatose, rhamnose,
     or a disaccharide based on two of the above such as maltose, lactose,
     maltulose, or lactulose.
IC
     ICM C07H005-04
     ICS C07H005-06
NCL
     536018700
     33-7 (Carbohydrates)
     Section cross-reference(s): 1, 6, 34
     Schiff base amino acid sugar prepn; Amadori amino acid sugar prepn
     antitumor; monosaccharide oligosaccharide prepn cell adhesion
     antitumor; glycoamine prepn cell adhesion antitumor apoptosis
     Carbohydrates, preparation
TT
     RL: BAC (Biological activity or effector, except adverse); BSU (Biological
     study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use);
     BIOL (Biological study); PREP (Preparation); USES (Uses)
        (Amadori compds.; synthetic glycoamines and methods for their use that
        affect cell adhesion, inhibit cancer cell metastasis, and induce
        apoptosis)
TT
     Antitumor agents
        (metastasis; synthetic glycoamines and methods for their use that
        affect cell adhesion, inhibit cancer cell metastasis, and induce
        apoptosis)
TΤ
     Antitumor agents
     Apoptosis
     Cell adhesion
        (synthetic glycoamines and methods for their use that affect cell
        adhesion, inhibit cancer cell metastasis, and induce apoptosis)
IT
     Monosaccharides
       Oligosaccharides, preparation
     RL: BAC (Biological activity or effector, except adverse); BSU (Biological
```

study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses) (synthetic glycoamines and methods for their use that affect cell adhesion, inhibit cancer cell metastasis, and induce apoptosis) IT 4429-05-4P 10003-63-1P 10003-64-2P 15027-17-5P 4480-72-2P 15898-19-8P 16124-24-6P 20638-92-0P 23931-61**-**5P 25020-15-9P 29118-61-4P 31105-01-8P 31105-02-9P 31105-03-0P 34393-17-4P 34393-27-6P 34393-18-5P 34393-22-1P 34393-24-3P 34393-26-5P 67068-84-2P 37721-43-0P 62446-18-8P 62474-76-4P 70954-04-0P 80873-57-0P **98299-79-7P** 112756-94-2P 134107-18-9P 175394-47-5P 175394-48-6P 175394-49-7P 208510-29-6P 208510-30-9P 208510-33-2P **208510-34-3P** 208510-35-4P 208510-36-5P 208510-38-7P 208510-40-1P 208510-41-2P 208510-43-4P 208510-44-5P 208510-46-7P 208510-47-8P 208510-49-0P 208665-55-8P 208510-50-3P 208665-56-9P 208665-58-1P 219142-31-1P 219142-32-2P 219142-33-3P 219142-34-4P 219142-35-5P RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses) (synthetic glycoamines and methods for their use that affect cell adhesion, inhibit cancer cell metastasis, and induce apoptosis) TT 98299-79-7P 208510-34-3P 208510-44-5P 208510-50-3P 208665-58-1P RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses) (synthetic glycoamines and methods for their use that affect cell adhesion, inhibit cancer cell metastasis, and induce apoptosis) RN 98299-79-7 HCAPLUS CN L-Alanine, 2,3-diester with methyl α -D-glucopyranoside (9CI) INDEX NAME)

Absolute stereochemistry.

RN 208510-34-3 HCAPLUS

CN L-Phenylalanine, 6-ester with D-glucose (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (+).

RN 208510-44-5 HCAPLUS

CN L-Valine, 6-ester with D-mannose (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 208510-50-3 HCAPLUS

CN L-Alanine, ester with methyl 2,3,4-tris-O-(aminoacetyl)- α -D-glucopyranoside (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 208665-58-1 HCAPLUS

CN L-Alanine, 6-ester with methyl $\alpha\text{-D-glucopyranoside}$ (9CI) (CA INDEX NAME)

RE.CNT 10 THERE ARE 10 CITED REFERENCES AVAILABLE FOR THIS RECORD ALL CITATIONS AVAILABLE IN THE RE FORMAT

L60 ANSWER 7 OF 12 HCAPLUS COPYRIGHT 2004 ACS on STN AN 1998:551126 HCAPLUS

DN 129:302769

TI A two-directional approach for the solid-phase synthesis of trisaccharide libraries

AU Zhu, Tong; Boons, Geert-Jan

CS Sch. Chem., Univ. Birmingham, Birminghaam, B15 2TT, UK

Angewandte Chemie, International Edition (1998), 37(13/14), 1898-1900 CODEN: ACIEF5; ISSN: 1433-7851

PB Wiley-VCH Verlag GmbH

DT Journal

LA English

AB The synthesis of **oligosaccharide** and saccharide libraries on a solid-support was described. The glycosylation strategy is two-directional: the immobilized thioglycoside acts first as a donor, and the product bearing a free hydroxy group is used in subsequent glycosylation as an acceptor and glycosylated with a thio-glycosyl donor. A mix-and-split approach gave a library with a know monosaccharide residue at the nonreducing end.

CC 33-4 (Carbohydrates)

ST solid phase synthesis trisaccharide library glycosylation

IT Glycosylation

Solid phase synthesis

(solid-phase synthesis of trisaccharide libraries)

IT Trisaccharides

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses) (solid-phase synthesis of trisaccharide libraries)

IT Libraries

(trisaccharide; solid-phase synthesis of trisaccharide libraries)

IT 214533-92-3DP, polymer-bound 214533-95-6P **214533-97-8DP**, polymer-bound **214534-02-8DP**, polymer-bound 214534-05-1P **214534-06-2DP**, polymer-bound 214534-11-9P 214534-12-0P

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU

(Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(solid-phase synthesis of trisaccharide libraries)

IT 3375-31-3

RL: CAT (Catalyst use); USES (Uses)

(solid-phase synthesis of trisaccharide libraries)

IT 108-30-5, reactions 4064-06-6 19488-48-3 29022-11-5 34212-64-1

```
40653-32-5
                  74808-09-6
                              108739-67-9 117381-20-1, Tentagel
     125411-99-6
                   197853-41-1
     RL: RCT (Reactant); RACT (Reactant or reagent)
        (solid-phase synthesis of trisaccharide libraries)
IT
     56-40-6DP, Glycine, polymer-bound, preparation
                                                       29022-11-5DP,
     polymer-bound
                    152964-70-0P
                                    214533-91-2P 214533-93-4DP,
     polymer-bound 214533-94-5DP, polymer-bound
                                                  214533-96-7DP,
     polymer-bound 214533-98-9DP, polymer-bound
                                                   214533-99-0P
     214534-00-6DP, polymer-bound 214534-01-7DP,
     polymer-bound 214534-03-9DP, polymer-bound
                                                   214534-04-0P
     214534-07-3DP, polymer-bound 214534-08-4DP,
     polymer-bound
                     214534-09-5P
                                     214534-10-8P
     RL: RCT (Reactant); SPN (Synthetic preparation); PREP
     (Preparation); RACT (Reactant or reagent)
        (solid-phase synthesis of trisaccharide libraries)
IT
     214533-97-8DP, polymer-bound 214534-02-8DP,
     polymer-bound 214534-06-2DP, polymer-bound
     RL: BAC (Biological activity or effector, except adverse); BSU (Biological
     study, unclassified); SPN (Synthetic preparation); THU
     (Therapeutic use); BIOL (Biological study); PREP
     (Preparation); USES (Uses)
        (solid-phase synthesis of trisaccharide libraries)
     214533-97-8 HCAPLUS
RN
CN
     Glycine, N-(3-carboxy-1-oxopropyl)-, N\rightarrow 6'-ester with methyl
     4-0-[2,3-bis-0-(phenylmethyl)-D-glucopyranosyl]-2,3,6-tris-0-
     (phenylmethyl) - \alpha - D - glucopyranoside (9CI) (CA INDEX NAME)
```

Absolute stereochemistry.

RN 214534-02-8 HCAPLUS

CN Glycine, N-(3-carboxy-1-oxopropyl)-, N \rightarrow 6'-ester with methyl 6-O-[2,3-bis-O-(phenylmethyl)-D-glucopyranosyl]-2,3,4-tris-O-(phenylmethyl)- β -D-galactopyranoside (9CI) (CA INDEX NAME)

RN 214534-06-2 HCAPLUS

CN Glycine, N-(3-carboxy-1-oxopropyl)-, N-6'-ester with methyl 6-0-[2,3-bis-0-(phenylmethyl)-D-glucopyranosyl]-2,3,4-tris-0-(phenylmethyl)- α -D-mannopyranoside (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 214533-94-5 HCAPLUS

CN α -D-Galactopyranose, O-2,3,4,6-tetrakis-O-(phenylmethyl)- α -D-glucopyranosyl-(1 \rightarrow 4)-O-6-O-[4-[(carboxymethyl)amino]-1,4-dioxobutyl]-2,3-bis-O-(phenylmethyl)-D-glucopyranosyl-(1 \rightarrow 6)-1,2:3,4-bis-O-(1-methylethylidene)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 214533-98-9 HCAPLUS

Glycine, N-(3-carboxy-1-oxopropyl)-, N-ester with methyl 4-O-[2,3-bis-O-(phenylmethyl)-4-O-(tetrahydro-2H-pyran-2-yl)-D-glucopyranosyl]-2,3,6-tris-O-(phenylmethyl)-α-D-glucopyranoside (9CI) (CA INDEX NAME)

RN 214534-00-6 HCAPLUS

CN Glycine, N-(3-carboxy-1-oxopropyl)-, N-ester with methyl 6-O-[2,3-bis-O-(phenylmethyl)-4-O-(tetrahydro-2H-pyran-2-yl)-D-glucopyranosyl]-2,3,4-tris-O-(phenylmethyl)- β -D-galactopyranoside (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 214534-01-7 HCAPLUS

CN Glycine, N-(3-carboxy-1-oxopropyl)-, N-ester with methyl 6-0-[2,3-bis-0-(phenylmethyl)-4-0-(tetrahydro-2H-pyran-2-yl)-D-glucopyranosyl]-2,3,4-tris-0-(phenylmethyl)- α -D-mannopyranoside (9CI) (CA INDEX NAME)

RN 214534-03-9 HCAPLUS

CN Glycine, N-(3-carboxy-1-oxopropyl)-, N \rightarrow 6'-ester with methyl O-2,3,4,6-tetrakis-O-(phenylmethyl)-D-galactopyranosyl-(1 \rightarrow 4)-O-2,3-bis-O-(phenylmethyl)-D-glucopyranosyl-(1 \rightarrow 4)-2,3,6-tris-O-(phenylmethyl)- α -D-glucopyranoside (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 214534-07-3 HCAPLUS

Glycine, N-(3-carboxy-1-oxopropyl)-, N-ester with methyl O-2,3,4,6-tetrakis-O-(phenylmethyl)-D-galactopyranosyl-(1 \rightarrow 4)-O-2,3-bis-O-(phenylmethyl)-D-glucopyranosyl-(1 \rightarrow 6)-2,3,4-tris-O-(phenylmethyl)- β -D-galactopyranoside (9CI) (CA INDEX NAME)

RN 214534-08-4 HCAPLUS

Glycine, N-(3-carboxy-1-oxopropyl)-, N-ester with methyl CN 0-2,3,4,6-tetrakis-0-(phenylmethyl)-D-galactopyranosyl-(1 \rightarrow 4)-0-2,3bis-O-(phenylmethyl)-D-glucopyranosyl-(1→6)-2,3,4-tris-O-(phenylmethyl)- α -D-mannopyranoside (9CI) (CA INDEX NAME)

Absolute stereochemistry.

THERE ARE 42 CITED REFERENCES AVAILABLE FOR THIS RECORD RE.CNT 42 ALL CITATIONS AVAILABLE IN THE RE FORMAT

ANSWER 8 OF 12 HCAPLUS COPYRIGHT 2004 ACS on STN

1998:192124 HCAPLUS AN

DN 128:257655

Preparation of dihydrochalcone derivatives which are hypoglycemic agents ΤI IN

Tsujihara, Kenji; Hongu, Mitsuya; Funami, Nobuyuki; Inamasu, Masanori; Arakawa, Kenji

PA Tanabe Seiyaku Co., Ltd., Japan

SO U.S., 42 pp., Cont.-in-part of U.S. 5,424,406. CODEN: USXXAM

DTPatent

LA English

FAN.CNT 3

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE		
ΡΙ	US 5731292 JP 06199886 JP 2762903 US 5424406 JP 06298790 JP 2795162	A A2 B2 A A2 B2	19980324 19940719 19980611 19950613 19941025 19980910	US 1995-426002 JP 1993-269342 US 1993-149912 JP 1994-19747	19950420 19931028 19931110 19940217		
PRAI OS GI	JP 06305971 JP 2906978	A2 B2 A A A A	19941101 19990621 19921112 19930218 19930225 19931110	JP 1994-26444	19940224		

$$R^{1}O$$
 OR^{5}
 $COCH_{2}CH_{2}R$
 $R^{2}O$
 OR^{4}

AΒ A method for prophylaxis or treatment of diabetes, which comprises administering to a patient with diabetes an effective amount of the prepared dihydrochalcone derivative, e.g. I (R = aryl; R1 = H, acyl; R2 = H, acyl, α -D-glucopyranosyl; R1,R2 = substituted CH2; R3, R4 = independently H, acyl; R5 = (un) protected OH, alkoxy). Thus, I (R = p-methoxyphenyl; R1 = H; R2 = α -D-glucopyranosyl; R3 = R4 = R5 = H), was prepared and showed excellent hypoglycemic activity 157 \pm 15 mg/24 h.

ICM A61K031-70

NCL514025000

33-4 (Carbohydrates)

Section cross-reference(s): 1, 63

SToligosaccharide hydrochalcone analog prepn antidiabetic

Ι

IT Antidiabetic agents

(preparation of dihydrochalcone sugar derivs. as antidiabetic agents)

IT Oligosaccharides, preparation

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(preparation of dihydrochalcone sugar derivs. as antidiabetic agents) TT 21562-21-0P 156728-64-2P 156729-34-9P 156729-49-6P 156729-54-3P 156729-55-4P 156729-56-5P 156729-57-6P 156729-58-7P 158492-78-5P 205194-63-4P 205194-64-5P 205194-65-6P 205194-68-9P 205194-69-0P RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); RCT (Reactant); SPN (Synthetic preparation); THU

```
(Therapeutic use); BIOL (Biological study); PREP (Preparation); RACT
       (Reactant or reagent); USES (Uses)
          (preparation of dihydrochalcone sugar derivs. as antidiabetic agents)
 ΙT
      4319-68-0P
                   23141-09-5P
                                  156728-21-1P
                                                156728-22-2P
                                                                 156728-23-3P
      156728-24-4P
                      156728-25-5P
                                     156728-26-6P
                                                     156728-27-7P
                                                                    156728-28-8P
      156728-29-9P
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                                     156728-31-3P
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                                                    156729-30-5P
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      163615-42-7P
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                                    163615-52-9P
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                                                  163615-59-6P
      163615-60-9P
                     163615-61-0P
                                    163615-62-1P
                                                    176539-19-8P
                                                                   205194-67-8P
      205194-71-4P
      RL: BAC (Biological activity or effector, except adverse); BSU (Biological
      study, unclassified); SPN (Synthetic preparation); THU
      (Therapeutic use); BIOL (Biological study); PREP
      (Preparation); USES (Uses)
         (preparation of dihydrochalcone sugar derivs. as antidiabetic agents)
IT
      104-87-0, p-Tolualdehyde
                                 123-11-5, Anisaldehyde, reactions
                                                                      699-83-2,
      2',6'-Dihydroxyacetophenone
                                    1125-88-8, Benzaldehyde dimethyl acetal
     1138-80-3, N-Benzyloxycarbonylglycine
                                             3446-89-7, p-
     Methylthiobenzaldehyde
                               19810-31-2, Benzyloxyacetic chloride
                                                                       23141-00-6
     68682-05-3
                                81172-89-6, 4-Diethoxymethylbenzaldehyde
                   74189-56-3
     RL: RCT (Reactant); RACT (Reactant or reagent)
         (preparation of dihydrochalcone sugar derivs. as antidiabetic agents)
IT
     156729-46-3P
                     205194-62-3P
     RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT
     (Reactant or reagent)
         (preparation of dihydrochalcone sugar derivs. as antidiabetic agents)
IT
     156728-95-9P 163615-40-5P 163615-48-3P
     163615-49-4P 163615-50-7P 163615-58-5P
     RL: BAC (Biological activity or effector, except adverse); BSU (Biological
     study, unclassified); SPN (Synthetic preparation); THU
     (Therapeutic use); BIOL (Biological study); PREP
     (Preparation); USES (Uses)
        (preparation of dihydrochalcone sugar derivs. as antidiabetic agents)
RN
     156728-95-9 HCAPLUS
     1-Propanone, 1-[2-[[2,3-bis-O-(1-oxobutyl)-\beta-D-glucopyranosyl]oxy]-6-
CN
     hydroxyphenyl]-3-(4-methoxyphenyl)- (9CI) (CA INDEX NAME)
Absolute stereochemistry.
```

RN 163615-40-5 HCAPLUS

1-Propanone, 1-[2-[[2,3-bis-O-(2-methyl-1-oxopropyl)- β -D-CN glucopyranosyl]oxy]-6-hydroxyphenyl]-3-(4-methoxyphenyl)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

163615-48-3 HCAPLUS RN

1-Propanone, 1-[2-[[2,3-bis-O-(3-methoxy-1-oxopropyl)- β -D-CN glucopyranosyl]oxy]-6-hydroxyphenyl]-3-(4-methoxyphenyl)- (9CI) (CA INDEX NAME)

RN 163615-49-4 HCAPLUS

CN 1-Propanone, 1-[2-[[2,3-bis-O-(2-methoxy-1-oxopropy1)-β-D-glucopyranosyl]oxy]-6-hydroxyphenyl]-3-(4-methoxyphenyl)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 163615-50-7 HCAPLUS

CN 1-Propanone, 1-[2-[[2,3-bis-O-(2-methoxy-2-methyl-1-oxopropyl)-β-D-glucopyranosyl]oxy]-6-hydroxyphenyl]-3-(4-methoxyphenyl)- (9CI) (CA INDEX NAME)

RN 163615-58-5 HCAPLUS

CN 1-Propanone, 1-[2-[[2,3-bis-O-(3-carboxy-1-oxopropyl)-β-D-glucopyranosyl]oxy]-6-hydroxyphenyl]-3-(4-methoxyphenyl)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RE.CNT 26 THERE ARE 26 CITED REFERENCES AVAILABLE FOR THIS RECORD ALL CITATIONS AVAILABLE IN THE RE FORMAT

L60 ANSWER 9 OF 12 HCAPLUS COPYRIGHT 2004 ACS on STN

AN 1996:466942 HCAPLUS

DN 125:115063

TI Preparation of acylated benzylglycosides as inhibitors of smooth muscle cell proliferation

IN Nguyen, Thomas The; Ellingboe, John Watson

PA American Home Products Corporation, USA

SO PCT Int. Appl., 49 pp. CODEN: PIXXD2

DT Patent

IAN.	AN.CNT 1 PATENT NO.					KIND		DATE			APP:	LICAT	DATE					
PI	WO								 WO 1995-US14795						19951103			
		W:	AL,	AM,	ΑU,	BB,	BG,	BR,	BY,	CA,	CN	, CZ,	EE,	FI,	GE,	HU,	IS,	JP.
			KG,	ΚP,	KR,	ΚZ,	LK,	LR,	LS,	LT,	LV	, MD,	MG,	MK,	MN,	MX,	NO,	NZ,
			PL,	RO,	RU,	SG,	SI,	SK,	ТJ,	TM,	TT	, UA,	UZ,	VN				-
		RW:	KE,	LS,	MW,	SD,	SZ,	ŬĠ,	AT,	BE,	CH	, DE,	DK,	ES,	FR,	GB,	GR,	IE,
			IT,	LU,	MC,	ΝL,	PT,	SE,	BF,	ВJ,	CF,	, CG,	CI,	CM,	GΑ,	GN,	ML,	MR,
				SN,				•										
	US 5773420					A	A 19980630 US 1995-				531142 199510					020		
	IL 115745 CA 2204530						1121		IL 1995-115745			45		19951024				
				AA														
		AU 9539353 AU 703338									3935	3 19951103						
	EP 791004 EP 791004							EP 1995-937706					19951103					
										an.	a n							
	ВD	R:	MI,	DE,	Cn,	DE,	DK,	1007	FK,	GB,	GR,	LE,	1T,	LI,	LU,	NL,	PT,	SE
	BR 9509586 HU 77757 JP 10508610				T2 19980825			BR 1995-9586 HU 1998-944 JP 1995-515544						19951103				
														19951103				
	AT 184283			1025				5 AT 1995-937706						19951103				
		ES 2136314 ZA 9509440					19991116		, I	7.1 I	1995-	93 <i>11</i> 0	06 16		19951103			
									5	ب د.ت 1 ∆ 7.	1995-	995-937706			19951103			
	FI 9701934 A				1997	ZA 1995-9440 FI 1997-1934						19951107						
		30317				Т3		20000	1229	Ċ	GR 1	1999-4	10281	25		10	7 <i>3 </i> U.	מטנ נחו
PRAI	US	1994-	3352	286		A		19941		`	J., 1		10202			1.3	, , , , , ,	103
		IS 1995-531142					1995]											
	WO 1995-US14795																	
os	MARPAT 125:115063				53					ı								
GI																		

AB Acylated benzylglycosides I [X = a, b; R1 = H, alkyl, Cl, Br, alkoxy; R2 = H, acyl, (un)substituted phenylsulfonyl; R3 = acyl, Bz, alkylsulfonyl; R4-R9 = acyl; R10,R11 = acyl, (un)substituted glucose or maltose] were prepared as inhibitors of smooth muscle cell proliferation, such as restenosis. Thus, N-[2-methyl-5-(2,3,4,6-tetra-O-acetyl- β -D-

OR4

```
glucopyranosyloxymethyl)phenyl]-3-nitrobenzamide was prepared and tested as
      inhibitor of smooth muscle cell proliferation and anticoagulant (79%
      inhibition at 50 \mug/mL).
IC
      ICM C07H015-203
      ICS A61K031-70
      33-4 (Carbohydrates)
CC
      Section cross-reference(s): 1
      restenosis oligosaccharide prepn anticoagulant antitumor;
      oligosaccharide prepn anticoagulant antitumor; anticoagulant
      antitumor acylated benzylglycoside prepn
IT
     Neoplasm inhibitors
         (preparation of acylated benzylglycosides as inhibitors of smooth muscle
        cell proliferation)
     Glycosides
IT
       Oligosaccharides
     RL: BAC (Biological activity or effector, except adverse); BSU (Biological
     study, unclassified); IMF (Industrial manufacture); SPN (Synthetic
     preparation); THU (Therapeutic use); BIOL (Biological study); PREP
      (Preparation); USES (Uses)
         (preparation of acylated benzylglycosides as inhibitors of smooth muscle
        cell proliferation)
IT
     Heart, disease
        (restenosis, preparation of acylated benzylglycosides as inhibitors of
        smooth muscle cell proliferation)
ΙT
     177164-95-3P
                    177165-52-5P
                                    179329-81-8P
                                                   179330-06-4P
     RL: BAC (Biological activity or effector, except adverse); BSU (Biological
     study, unclassified); IMF (Industrial manufacture); RCT (Reactant); SPN
     (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study);
     PREP (Preparation); RACT (Reactant or reagent); USES (Uses)
        (preparation of acylated benzylglycosides as inhibitors of smooth muscle
        cell proliferation)
TΤ
     177165-57-0P
                    179329-82-9P
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     179329-86-3P
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                                                   179329-89-6P
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                                    179329-93-2P
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     179329-96-5P
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     RL: BAC (Biological activity or effector, except adverse); BSU (Biological
     study, unclassified); IMF (Industrial manufacture); SPN
     (Synthetic preparation); THU (Therapeutic use); BIOL
     (Biological study); PREP (Preparation); USES (Uses)
        (preparation of acylated benzylglycosides as inhibitors of smooth muscle
        cell proliferation)
TT
     177164-94-2P
                    179330-11-1P
                                   179330-13-3P
                                                   179330-15-5P
                                                                  179330-16-6P
     RL: IMF (Industrial manufacture); RCT (Reactant); SPN (Synthetic
     preparation); PREP (Preparation); RACT (Reactant or reagent)
        (preparation of acylated benzylglycosides as inhibitors of smooth muscle
        cell proliferation)
IT
     179330-12-2P
                    179330-14-4P
     RL: IMF (Industrial manufacture); SPN (Synthetic preparation); PREP
     (Preparation)
        (preparation of acylated benzylglycosides as inhibitors of smooth muscle
        cell proliferation)
ΙT
    121-90-4, 3-Nitrobenzoyl chloride
                                        14257-35-3, Acetobromo-\alpha-maltose
     40870-59-5
                 81863-45-8, 3-Amino-4-methylbenzyl alcohol
    RL: RCT (Reactant); RACT (Reactant or reagent)
        (preparation of acylated benzylglycosides as inhibitors of smooth muscle
        cell proliferation)
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IT 179330-10-0P

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); IMF (Industrial manufacture); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses) (preparation of acylated benzylglycosides as inhibitors of smooth muscle

cell proliferation) RN 179330-10-0 HCAPLUS

Propanamide, N-(methylsulfonyl)-N-[4-[[[2-methyl-5-[[[2,3,6-tris-O-(1-oxopropyl)-4-O-[2,3,4,6-tetrakis-O-(1-oxopropyl)-α-D-glucopyranosyl]-β-D-glucopyranosyl]oxy]methyl]phenyl](1-oxopropyl)amino]sulfonyl]phenyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

PAGE 1-B

__ Me

L60 ANSWER 10 OF 12 HCAPLUS COPYRIGHT 2004 ACS on STN

AN 1995:992453 HCAPLUS

DN 124:30255

TI Preparation of steroidal disaccharide glycosides as hypocholesterolemic and antiatherosclerosis agents

IN Deninno, Michael Paul

```
PΑ
     Pfizer Inc., USA
SO
     PCT Int. Appl., 102 pp.
     CODEN: PIXXD2
DT
     Patent
LΑ
     English
FAN.CNT 1
     PATENT NO.
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                                              APPLICATION NO.
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             BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG
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PRAI US 1993-174099
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OS
     MARPAT 124:30255
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Steroidal disaccharide glycosides I (X, Y = CHOH; R1, R2, R3 = H, OH, N3, AB halogen, alkoxy) were prepared as hypocholesterolemic and antiatherosclerosis agents (no data). Thus, $(3\beta, 5\alpha, 25R)-3 \hbox{\tt [(\beta-D-cellobiosyl)oxy]} spirostan-11-one was prepared via glycosidation$ of hydroxyspirostanone. IC

ICM C07J071-00

ICS A61K031-58

CC33-4 (Carbohydrates)

Section cross-reference(s): 1, 32

ST steroid oligosaccharide glycoside hypocholesterolemic

```
antiatherosclerosis; spirostanyl oligosaccharide glycoside
     hypocholesterolemic antiatherosclerosis
ΙT
     Anticholesteremics and Hypolipemics
         (preparation of spirostanyl disaccharide glycosides as hypocholesterolemic
        and antiatherosclerosis agents)
ΙT
     Steroids, preparation
     RL: BAC (Biological activity or effector, except adverse); BSU (Biological
     study, unclassified); RCT (Reactant); SPN (Synthetic preparation); THU
     (Therapeutic use); BIOL (Biological study); PREP (Preparation); RACT
     (Reactant or reagent); USES (Uses)
         (preparation of spirostanyl disaccharide glycosides as hypocholesterolemic
        and antiatherosclerosis agents)
ΙT
     Oligosaccharides
     RL: BAC (Biological activity or effector, except adverse); BSU (Biological
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     BIOL (Biological study); PREP (Preparation); USES (Uses)
        (steroidal di-,; preparation of spirostanyl disaccharide glycosides as
        hypocholesterolemic and antiatherosclerosis agents)
ΙT
     Arteriosclerosis
        (atherosclerosis, anti-; preparation of spirostanyl disaccharide glycosides
        as hypocholesterolemic and antiatherosclerosis agents)
IT
     RL: BAC (Biological activity or effector, except adverse); BSU (Biological
     study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use);
     BIOL (Biological study); PREP (Preparation); USES (Uses)
        (steroidal, preparation of spirostanyl disaccharide glycosides as
        hypocholesterolemic and antiatherosclerosis agents)
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    study, unclassified); SPN (Synthetic preparation); THU
    (Therapeutic use); BIOL (Biological study); PREP
    (Preparation); USES (Uses)
       (preparation of spirostanyl disaccharide glycosides as hypocholesterolemic
       and antiatherosclerosis agents)
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      593-56-6, Methoxylamine hydrochloride 915-35-5
                                                          1641-09-4.
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     70223-96-0
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        and antiatherosclerosis agents)
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        (preparation of spirostanyl disaccharide glycosides as hypocholesterolemic
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        (preparation of spirostanyl disaccharide glycosides as hypocholesterolemic
        and antiatherosclerosis agents)
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     study, unclassified); SPN (Synthetic preparation); THU
     (Therapeutic use); BIOL (Biological study); PREP
     (Preparation); USES (Uses)
        (preparation of spirostanyl disaccharide glycosides as hypocholesterolemic
        and antiatherosclerosis agents)
RN
     171660-21-2 HCAPLUS
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CN
     dimethyl-1-oxopropyl)-\beta-D-glucopyranosyl]-\beta-D-
     glucopyranosyl]oxy]-, (3\beta, 5\alpha, 25R)- (9CI) (CA INDEX NAME)
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L60 ANSWER 11 OF 12 HCAPLUS COPYRIGHT 2004 ACS on STN

AN 1995:522620 HCAPLUS

DN 122:291442

TI preparation of Lewis-associated compounds as antiinflammatories

IN Numata, Masaaki; Nunomura, Shigeki; Fujita, Shuji; Iida, Masami; Endo, Akira; Ishii, Takayuki; Ogawa, Tomoya; Sugimoto, Mamoru; Osawa, Ryoichi; Fujita, Masamichi

PA MECT Corp., Japan

SO PCT Int. Appl., 240 pp. CODEN: PIXXD2

DT Patent

LA Japanese

FAN.CNT 1

PATENT NO. KIND DATE APPLICATION NO. DATE

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os
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GΙ
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Ι

ΙI

Title compds. e.g., I [R1 = H, SO3M, acetyl, pivaloyl, CH2-CO2-M, etc.; MAΒ = H, alkali metal, etc.; R2 = H, SO3M, CH2-CO2-M, acetyl, acyl; R3 = H, SO3M, CH2-CO2-M, acetyl, etc.; or R2R3 = benzylidene, R4 = H, acetyl, benzyl, pivaloyl; R5 = alkoxy, alkenyloxy, etc.; R6 = acetamido, phthaloylamino, hydroxy, pivaloyloxy; R7 = H, Ac, benzyl, pivaloyl; R8 = H, Ac, benzyl], are prepared Thus, the disaccharide II (preparation given) was reacted with the thio glycoside III in Et20 containing MeOTf and Mol. sieves 4A at 0° for 3 h and the resulting mixture was cooled at -10° overnight to give 94.3% I [R1-R3 $\stackrel{\checkmark}{=}$ Ac, R4 = R7 = R8 = benzyl, R5 = allyloxy, R6 = phthalimido]. In a study where 19 title compds. were tested for their antiinflammatory activity at 1 mg/Kg in guinea pigs, the inhibition rates ranged from $21.0\pm5.9\%$ to $76.8\pm12.0\%$ against rabbit albumin antiserum-induced inflammation. IC

ICM C07H015-10

ICS C07H015-18; C07H013-06; C07H003-06; C08B037-00; A61K037-20

CC 33-4 (Carbohydrates)

Section cross-reference(s): 1, 63

SToligosaccharide prepn antiinflammatory

```
IT
     Inflammation inhibitors
        (preparation of Lewis-associated compds. as antiinflammatories)
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antiinflammatories)
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      study, unclassified); SPN (Synthetic preparation); THU
      (Therapeutic use); BIOL (Biological study); PREP
      (Preparation); USES (Uses)
         (preparation of Lewis-associated compds. as antiinflammatories)
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      (Preparation); RACT (Reactant or reagent)
         (preparation of Lewis-associated compds. as antiinflammatories)
      107-18-6, Allyl alcohol, reactions
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     RL: BAC (Biological activity or effector, except adverse); BSU (Biological
     study, unclassified); SPN (Synthetic preparation); THU
     (Therapeutic use); BIOL (Biological study); PREP
     (Preparation); USES (Uses)
        (preparation of Lewis-associated compds. as antiinflammatories)
RN
     162635-38-3 HCAPLUS
CN
     \beta-D-Glucopyranoside, phenylmethyl 0-6-deoxy-2,3,4-tris-0-
     (phenylmethyl)-\alpha-L-galactopyranosyl-(1+3)-O-[2,3,4-tri-O-
     acetyl-6-0-(phenylmethyl)-\beta-D-galactopyranosyl-(1\rightarrow4)]-0-2-
     \texttt{deoxy-2-(1,3-dihydro-1,3-dioxo-2H-isoindol-2-y1)-6-0-(phenylmethyl)-\beta-1}
     D-glucopyranosyl-(1\rightarrow3)-O-2,4,6-tris-O-(phenylmethyl)-\beta-D-
     galactopyranosyl-(1\rightarrow 4)-3,6-bis-O-(phenylmethyl)-,
     2-(2,2-dimethylpropanoate) (9CI) (CA INDEX NAME)
```

RN162635-40-7 HCAPLUS

 $\beta\text{-D-Glucopyranoside, phenylmethyl O-6-deoxy-2,3,4-tris-O-}$ CN(phenylmethyl) $-\alpha$ -L-galactopyranosyl- $(1\rightarrow 3)$ -O-[2,3,4-tri-Oacetyl-6-0-(phenylmethyl)- β -D-galactopyranosyl-(1-4)]-0-2- $(\texttt{acetylamino}) - 2 - \texttt{deoxy-6-0-} (\texttt{phenylmethyl}) - \beta - \texttt{D-glucopyranosyl-}$ $(1\rightarrow 3)$ -O-2,4,6-tris-O-(phenylmethyl)- β -D-galactopyranosyl- $(1\rightarrow 4)-3$, 6-bis-O-(phenylmethyl)-, <math>2-(2,2-dimethylpropanoate) (9CI) (CA INDEX NAME)

RN 162635-41-8 HCAPLUS $\beta\text{-D-Glucopyranoside, phenylmethyl O-6-deoxy-2,3,4-tris-O-(phenylmethyl)-α-L-galactopyranosyl-(1\to 3)-O-[6-O-(phenylmethyl)-β-D-galactopyranosyl-(1\to 4)]-O-2-(acetylamino)-2-deoxy-6-O-(phenylmethyl)-β-D-glucopyranosyl-(1\to 3)-O-2,4,6-tris-O-(phenylmethyl)-β-D-galactopyranosyl-(1\to 4)-3,6-bis-O-(phenylmethyl)-, 2-(2,2-dimethyl)propanoate) (9CI) (CA INDEX NAME)$

Absolute stereochemistry. Rotation (-).

RN 162635-42-9 HCAPLUS

CN β -D-Glucopyranoside, phenylmethyl O-2,3-bis-O-(1,4-dioxopentyl)-6-O-(phenylmethyl)- β -D-galactopyranosyl-(1 \rightarrow 4)-O-[6-deoxy-2,3,4-tris-O-(phenylmethyl)- α -L-galactopyranosyl-(1 \rightarrow 3)]-O-2-(acetylamino)-2-deoxy-6-O-(phenylmethyl)- β -D-glucopyranosyl-(1 \rightarrow 3)-O-2,4,6-tris-O-(phenylmethyl)- β -D-galactopyranosyl-(1 \rightarrow 4)-3,6-bis-O-(phenylmethyl)-, 2-(2,2-dimethylpropanoate) (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).

162635-43-0 HCAPLUS RN

 $\beta\text{-D-Glucopyranoside, phenylmethyl O-4-O-acetyl-2,3-bis-O-(1,4-$ CN dioxopentyl)-6-0-(phenylmethyl)- β -D-galactopyranosyl-(1 \rightarrow 4)-0-[6-deoxy-2,3,4-tris-O-(phenylmethyl)- α -L-galactopyranosyl-(1 \rightarrow 3)]-O-2-(acetylamino)-2-deoxy-6-O-(phenylmethyl)- β -Dglucopyranosyl- $(1\rightarrow 3)$ -O-2,4,6-tris-O-(phenylmethyl)- β -Dgalactopyranosyl- $(1\rightarrow 4)$ -3,6-bis-0-(phenylmethyl)-, 2-(2,2-dimethylpropanoate) (9CI) (CA INDEX NAME)

RN162635-44-1 HCAPLUS β -D-Glucopyranose, O-4,6-di-O-acetyl-2,3-bis-O-(1,4-dioxopentyl)-CN β -D-galactopyranosyl- $(1\rightarrow 4)$ -O-[2,3,4-tri-O-acetyl-6-deoxy- α -L-galactopyranosyl-(1+3)]-0-6-0-acetyl-2-(acetylamino)-2deoxy- β -D-glucopyranosyl-(1+3)-O-2,4,6-tri-O-acetyl- β -D-galactopyranosyl-(1+4)-, 1,3,6-triacetate 2-(2,2dimethylpropanoate) (9CI) (CA INDEX NAME)

PAGE 1-B

__ Bu-t

RN 162635-45-2 HCAPLUS D-Glucose, O-4,6-di-O-acetyl-2,3-bis-O-(1,4-dioxopentyl)- β -D-galactopyranosyl-(1 \rightarrow 4)-O-[2,3,4-tri-O-acetyl-6-deoxy- α -L-galactopyranosyl-(1 \rightarrow 3)]-O-6-O-acetyl-2-(acetylamino)-2-deoxy- β -D-glucopyranosyl-(1 \rightarrow 3)-O-2,4,6-tri-O-acetyl- β -D-galactopyranosyl-(1 \rightarrow 4)-, 3,6-diacetate 2-(2,2-dimethylpropanoate) (9CI) (CA INDEX NAME)

PAGE 1-B

__ Bu−t

RN 162635-46-3 HCAPLUS $\begin{array}{lll} & \alpha-D-Glucopyranose, & 0-4,6-di-O-acetyl-2,3-bis-O-(1,4-dioxopentyl)-\beta-D-galactopyranosyl-(1\rightarrow4)-O-[2,3,4-tri-O-acetyl-6-deoxy-\alpha-L-galactopyranosyl-(1\rightarrow3)]-O-6-O-acetyl-2-(acetylamino)-2-deoxy-\beta-D-glucopyranosyl-(1\rightarrow3)-O-2,4,6-tri-O-acetyl-\beta-D-galactopyranosyl-(1\rightarrow4)-, & 3,6-diacetate & 2-(2,2-dimethylpropanoate) & 1-(2,2,2-trichloroethanimidate) & (9CI) & (CA INDEX NAME) \\ \end{array}$

Absolute stereochemistry. Rotation (-).

PAGE 1-B

___ Bu-t

_ccl3

RN 162635-47-4 HCAPLUS

CN Tetracosanamide, N-[(1S,2R,3E)-2-(benzoyloxy)-1-[[[0-4,6-di-0-acetyl-2,3-bis-0-(1,4-dioxopentyl)- β -D-galactopyranosyl-(1-4)-0-[2,3,4-tri-0-acetyl-6-deoxy- α -L-galactopyranosyl-(1-3)]-0-6-0-acetyl-2-(acetylamino)-2-deoxy- β -D-glucopyranosyl-(1-3)-0-2,4,6-tri-0-acetyl- β -D-galactopyranosyl-(1-4)-3,6-di-0-acetyl-2-0-(2,2-

 $\texttt{dimethyl-1-oxopropyl)-}\beta-\texttt{D-glucopyranosyl]oxy]} \texttt{methyl}]-3-\texttt{heptadecenyl}]-$ (9CI) (CA INDEX NAME)

PAGE 1-A

PAGE 1-B

RN162635-48-5 HCAPLUS

Tetracosanamide, N-[(1S,2R,3E)-2-(benzoyloxy)-1-[[[0-4,6-di-0-acetyl-permission-ace CN β -D-galactopyranosyl-(1 \rightarrow 4)-O-[2,3,4-tri-O-acetyl-6-deoxy- α -L-galactopyranosyl-(1+3)]-0-6-0-acetyl-2-(acetylamino)-2- $\texttt{deoxy-}\beta-\texttt{D-glucopyranosyl-(1\rightarrow 3)-O-2,4,6-tri-O-acetyl-}\beta-\texttt{D-D-acetyl-}\beta$ $galactopyranosyl-(1\rightarrow 4)-3,6-di-O-acetyl-2-O-(2,2-dimethyl-1$ oxopropyl)-β-D-glucopyranosyl]oxy]methyl]-3-heptadecenyl]- (9CI) INDEX NAME)

PAGE 1-B

(9CI) (CA INDEX NAME)

RN 162635-49-6 HCAPLUS
Tetracosanamide, N-[(1S,2R,3E)-2-(benzoyloxy)-1-[[[0-4,6-di-0-acetyl-2-0-(1,4-dioxopentyl)- β -D-galactopyranosyl-(1+4)-0-[2,3,4-tri-0-acetyl-6-deoxy- α -L-galactopyranosyl-(1+3)]-0-6-0-acetyl-2-(acetylamino)-2-deoxy- β -D-glucopyranosyl-(1+3)-0-2,4,6-tri-0-acetyl- β -D-galactopyranosyl-(1+4)-3,6-di-0-acetyl-2-0-(2,2-dimethyl-1-oxopropyl)- β -D-glucopyranosyl]oxy]methyl]-3-heptadecenyl]-

PAGE 1-B

RN 162635-50-9 HCAPLUS
Tetracosanamide, N-[(1S,2R,3E)-2-(benzoyloxy)-1-[[[0-4,6-di-0-acetyl-3-0-(1,4-dioxopentyl)- β -D-galactopyranosyl-(1 \rightarrow 4)-0-[2,3,4-tri-0-acetyl-6-deoxy- α -L-galactopyranosyl-(1 \rightarrow 3)]-0-6-0-acetyl-2-(acetylamino)-2-deoxy- β -D-glucopyranosyl-(1 \rightarrow 3)-0-2,4,6-tri-0-acetyl- β -D-galactopyranosyl-(1 \rightarrow 4)-3,6-di-0-acetyl-2-0-(2,2-dimethyl-1-oxopropyl)- β -D-glucopyranosyl]oxy]methyl]-3-heptadecenyl]-(9CI) (CA INDEX NAME)

PAGE 1-B

RN 162635-51-0 HCAPLUS

Tetracosanamide, N-[(1S,2R,3E)-2-(benzoyloxy)-1-[[[0-4,6-di-0-acetyl-2,3-di-0-sulfo- β -D-galactopyranosyl-(1 \rightarrow 4)-0-[2,3,4-tri-0-acetyl-6-deoxy- α -L-galactopyranosyl-(1 \rightarrow 3)]-0-6-0-acetyl-2-(acetylamino)-2-deoxy- β -D-glucopyranosyl-(1 \rightarrow 3)-0-2,4,6-tri-0-acetyl- β -D-galactopyranosyl-(1 \rightarrow 4)-3,6-di-0-acetyl-2-0-(2,2-dimethyl-1-oxopropyl)- β -D-glucopyranosyl]oxy]methyl]-3-heptadecenyl]-, disodium salt (9CI) (CA INDEX NAME)

●2 Na

PAGE 1-B

RN 162740-30-9 HCAPLUS

CN β -D-Glucopyranoside, propyl O-6-deoxy-2,3,4-tris-O-(phenylmethyl)- α -L-galactopyranosyl-(1 \rightarrow 3)-O-[3-O-(1,4-dioxopentyl)-6-O-(phenylmethyl)- β -D-galactopyranosyl-(1 \rightarrow 4)]-2-(acetylamino)-2-deoxy-6-O-(phenylmethyl)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

162740-31-0 HCAPLUS RN

 β -D-Glucopyranoside, propyl 0-6-deoxy-2,3,4-tris-0-(phenylmethyl)-CN α -L-galactopyranosyl-(1 \rightarrow 3)-O-[2,4-di-O-acetyl-3-O-(1,4- $\texttt{dioxopentyl)} - 6 - 0 - (\texttt{phenylmethyl}) - \beta - D - \texttt{galactopyranosyl} - (1 \rightarrow 4) \,] - 2 -$ (acetylamino)-2-deoxy-6-0-(phenylmethyl)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN162740-36-5 HCAPLUS

 β -D-Glucopyranoside, propyl O-6-deoxy-2,3,4-tris-O-(phenylmethyl)-CN α -L-galactopyranosyl- $(1\rightarrow 3)$ -O-[2-O-(1,4-dioxopentyl)-6-O- $(phenylmethyl)-\beta-D-galactopyranosyl-(1\rightarrow4)]-2-(acetylamino)-2$ deoxy-6-0-(phenylmethyl)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 162740-43-4 HCAPLUS

CN β -D-Glucopyranoside, propyl O-2,3-bis-O-(1,4-dioxopentyl)-6-O-(phenylmethyl)- β -D-galactopyranosyl-(1 \rightarrow 4)-O-[6-deoxy-2,3,4-tris-O-(phenylmethyl)- α -L-galactopyranosyl-(1 \rightarrow 3)]-2-(acetylamino)-2-deoxy-6-O-(phenylmethyl)- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).

RN 162740-79-6 HCAPLUS

Tetracosanamide, N-[2-(benzoyloxy)-1-[[[0-4,6-di-0-acetyl-3-0-sulfo- β -D-galactopyranosyl-(1-4)-0-[2,3,4-tri-0-acetyl-6-deoxy- α -L-galactopyranosyl-(1-3)]-0-6-0-acetyl-2-(acetylamino)-2-deoxy- β -D-glucopyranosyl-(1-3)-0-2,4,6-tri-0-acetyl- β -D-galactopyranosyl-(1-4)-3,6-di-0-acetyl-2-0-(2,2-dimethyl-1-oxopropyl)- β -D-glucopyranosyl]oxy]methyl]-3-heptadecenyl]-, monosodium salt, [R-[R*,S*-(E)]]- (9CI) (CA INDEX NAME)

Double bond geometry as shown.

PAGE 1-B

162740-82-1 HCAPLUS D-Glucopyranose, O-(N-acetyl-4,7,8,9-tetra-O-acetyl-1-methyl- α -CN neuraminosyl) – $(2\rightarrow 3)$ – O-2, 4, 6-tri-O-acetyl- β -D-galactopyranosyl- $(1\rightarrow 4)$ -O-[2,3,4-tri-O-acetyl-6-deoxy- α -L-galactopyranosyl-(1→3)]-0-6-0-acetyl-2-deoxy-2-(1,3-dihydro-1,3-dioxo-2H-isoindol-2yl)- β -D-glucopyranosyl-(1 \rightarrow 3)-O-2,4,6-tri-O-acetyl- β -Dgalactopyranosyl- $(1\rightarrow 4)$ -O-[2,3,4-tri-O-acetyl-6-deoxy- α -Lgalactopyranosyl- $(1\rightarrow3)$]-0-6-0-acetyl-2-(acetylamino)-2-deoxy- β -D-glucopyranosyl-(1 \rightarrow 3)-O-2,4,6-tri-O-acetyl- $\hat{\beta}$ -D-

galactopyranosyl- $(1\rightarrow 4)$ -, 1,3,6-triacetate 2-(2,2-

dimethylpropanoate) (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN

PAGE 3-A

Absolute stereochemistry.

PAGE 2-A

) DAc

Aco

PAGE 3-A

PAGE 4-A

RN 162740-86-5 HCAPLUS CN Tetracosanamide. N-1

Tetracosanamide, N-[1-[[[O-(N-acetyl-4,7,8,9-tetra-O-acetyl- α -neuraminosyl)-(2+3)-O-2,4,6-tri-O-acetyl- β -D-galactopyranosyl-(1+4)-O-[2,3,4-tri-O-acetyl-6-deoxy- α -L-galactopyranosyl-(1+3)]-O-6-O-acetyl-2-deoxy-2-(1,3-dihydro-1,3-dioxo-2H-isoindol-2-yl)- β -D-glucopyranosyl-(1+3)-O-2,4,6-tri-O-acetyl- β -D-galactopyranosyl-(1+4)-O-[2,3,4-tri-O-acetyl-6-deoxy- α -L-galactopyranosyl-(1+3)]-O-6-O-acetyl-2-(acetylamino)-2-deoxy- β -D-glucopyranosyl-(1+3)-O-2,4,6-tri-O-acetyl- β -D-galactopyranosyl-(1+3)-O-2,4,6-tri-O-acetyl- β -D-galactopyranosyl-(1+4)-3,6-di-O-acetyl-2-O-(2,2-dimethyl-1-oxopropyl)- β -D-glucopyranosyl]oxy]methyl]-2-(benzoyloxy)-3-heptadecenyl]-, monolithium salt, [R-[R*,S*-(E)]]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

Double bond geometry as shown.

PAGE 1-B

Me (CH₂)
$$12$$

PAGE 3-A

PAGE 4-A

● Li

RN 162741-04-0 HCAPLUS $\beta\text{-D-Galactopyranoside, phenylmethyl O-(N-acetyl-4,7,8,9-tetra-O-acetyl-1-methyl-α-neuraminosyl)-(2+3)-0-2,4-di-0-acetyl-6-O-(phenylmethyl)-β-D-galactopyranosyl-(1+3)-0-[6-deoxy-2,3,4-tris-O-(phenylmethyl)-α-L-galactopyranosyl-(1+4)]-0-2-deoxy-2-(1,3-dihydro-1,3-dioxo-2H-isoindol-2-yl)-6-O-(phenylmethyl)-β-D-glucopyranosyl-(1+3)-2,4-bis-O-(phenylmethyl)-, 6-(4-oxopentanoate) (9CI) (CA INDEX NAME)$

PAGE 2-A

RN 162741-12-0 HCAPLUS

CN β -D-Glucopyranoside, 4-methoxyphenyl 4-O-[2,6-bis-O-(2,2-dimethyl-1-oxopropyl)-3,4-O-(1-methylethylidene)- β -D-galactopyranosyl]-, 2,6-bis(2,2-dimethylpropanoate) (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 162741-13-1 HCAPLUS

CN β -D-Glucopyranoside, 4-methoxyphenyl O-2,6-bis-O-(2,2-dimethyl-1-oxopropyl)-3,4-O-(1-methylethylidene)- β -D-galactopyranosyl-(1 \rightarrow 4)-O-[6-deoxy-2,3,4-tris-O-(phenylmethyl)- α -L-galactopyranosyl-(1 \rightarrow 3)]-, bis(2,2-dimethylpropanoate) (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 162741-14-2 HCAPLUS

CN β -D-Glucopyranoside, 4-methoxyphenyl 0-2,6-bis-O-(2,2-dimethyl-1-oxopropyl)- β -D-galactopyranosyl-(1 \rightarrow 4)-O-[6-deoxy-2,3,4-tris-O-(phenylmethyl)- α -L-galactopyranosyl-(1 \rightarrow 3)]-, 2,6-bis(2,2-dimethylpropanoate) (9CI) (CA INDEX NAME)

PAGE 2-A

RN 162741-15-3 HCAPLUS

CN

 β -D-Glucopyranoside, 4-methoxyphenyl O-2,6-bis-O-(2,2-dimethyl-1-oxopropyl)-3-O-(1,4-dioxopentyl)- β -D-galactopyranosyl-(1-4)-O-[6-deoxy-2,3,4-tris-O-(phenylmethyl)- α -L-galactopyranosyl-(1-3)]-, 2,6-bis(2,2-dimethylpropanoate) (9CI) (CA INDEX NAME)

PAGE 2-A

RN 162741-16-4 HCAPLUS

CN β -D-Glucopyranoside, 4-methoxyphenyl O-4-O-acetyl-2,6-bis-O-(2,2-dimethyl-1-oxopropyl)-3-O-(1,4-dioxopentyl)- β -D-galactopyranosyl-(1+4)-O-[6-deoxy-2,3,4-tris-O-(phenylmethyl)- α -L-galactopyranosyl-(1+3)]-, bis(2,2-dimethylpropanoate) (9CI) (CA INDEX NAME)

PAGE 2-A

RN162741-17-5 HCAPLUS $\beta\text{-D-Glucopyranoside, }4\text{-methoxyphenyl O-4-O-acetyl-2,6-bis-O-(2,2-d-bis-O-1)}$ CN dimethyl-1-oxopropyl)-3-0-(1,4-dioxopentyl)- β -D-galactopyranosyl- $(1\rightarrow 4)$ -0-[2,3,4-tri-0-acetyl-6-deoxy- α -L-galactopyranosyl-

(1→3)]-, bis(2,2-dimethylpropanoate) (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 162741-18-6 HCAPLUS

CN β -D-Glucopyranoside, 4-methoxyphenyl O-2,6-bis-O-(2,2-dimethyl-1-oxopropyl)-4-O-sulfo- β -D-galactopyranosyl-(1-4)-O-[6-deoxy-2,3,4-tris-O-(phenylmethyl)- α -L-galactopyranosyl-(1-3)]-, 2,6-bis(2,2-dimethylpropanoate), monosodium salt (9CI) (CA INDEX NAME)

OMe

Absolute stereochemistry.

PAGE 2-A

O Bu-t

Na

RN 162741-19-7 HCAPLUS

CN β -D-Glucopyranoside, 4-methoxyphenyl O-2,6-bis-O-(2,2-dimethyl-1-oxopropyl)-3,4-di-O-sulfo- β -D-galactopyranosyl-(1 \rightarrow 4)-O-[6-deoxy-2,3,4-tris-O-(phenylmethyl)- α -L-galactopyranosyl-(1 \rightarrow 3)]-, bis(2,2-dimethylpropanoate), disodium salt (9CI) (CA INDEX NAME)

Absolute stereochemistry.

PAGE 1-A

PAGE 2-A

O Bu-t

●2 Na

RN 162741-20-0 HCAPLUS CN β -D-Glucopyranoside.

β-D-Glucopyranoside, 4-methoxyphenyl 0-4-0-acetyl-2,6-bis-0-(2,2-dimethyl-1-oxopropyl)-β-D-galactopyranosyl-(1-4)-0-[6-deoxy-2,3,4-tris-0-(phenylmethyl)-α-L-galactopyranosyl-(1-3)]-, 2,6-bis(2,2-dimethylpropanoate) (9CI) (CA INDEX NAME)

Absolute stereochemistry.

PAGE 1-A

// \ Bu +

PAGE 2-A

RN 162741-21-1 HCAPLUS CN β -D-Glucopyranoside

β-D-Glucopyranoside, 4-methoxyphenyl O-4-O-acetyl-2,6-bis-O-(2,2-dimethyl-1-oxopropyl)-3-O-sulfo-β-D-galactopyranosyl-(1+4)-O-[6-deoxy-2,3,4-tris-O-(phenylmethyl)-α-L-galactopyranosyl-(1+3)]-, bis(2,2-dimethylpropanoate), sodium salt (9CI) (CA INDEX NAME)

PAGE 2-A

● N=

RN 162741-22-2 HCAPLUS

CN β -D-Glucopyranoside, 4-methoxyphenyl O-6-deoxy- α -L-galactopyranosyl-(1 \rightarrow 3)-O-[2-O-(2,2-dimethyl-1-oxopropyl)-3-O-sulfo- β -D-galactopyranosyl-(1 \rightarrow 4)]-, 2-(2,2-dimethylpropanoate), monosodium salt (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN162741-25-5 HCAPLUS

 $\beta\text{-D-Glucopyranoside, }4\text{-methoxyphenyl O-2,6-bis-O-(2,2-dimethyl-1-dimet$ CNoxopropyl) -3, 4-di-O-sulfo- β -D-galactopyranosyl- $(1\rightarrow 4)$ -O-[6deoxy- α -L-galactopyranosyl- $(1\rightarrow 3)$]-, 2,6-bis(2,2dimethylpropanoate), disodium salt (9CI) (CA INDEX NAME)

Absolute stereochemistry.

PAGE 2-A

●2 Na

RN 162741-32-4 HCAPLUS

CN β -D-Glucopyranoside, phenylmethyl O-(N-acetyl-4,7,8,9-tetra-O-acetyl-1-methyl- α -neuraminosyl)-(2 \rightarrow 3)-O-2,4-di-O-acetyl-6-O-(phenylmethyl)- β -D-galactopyranosyl-(1 \rightarrow 3)-O-[6-deoxy-2,3,4-tris-O-(phenylmethyl)- α -L-galactopyranosyl-(1 \rightarrow 4)]-O-2-deoxy-2-(1,3-dihydro-1,3-dioxo-2H-isoindol-2-yl)-6-O-(phenylmethyl)- β -D-galactopyranosyl-(1 \rightarrow 3)-O-2,4,6-tris-O-(phenylmethyl)- β -D-galactopyranosyl-(1 \rightarrow 4)-3,6-bis-O-(phenylmethyl)-,2-(2,2-dimethyl)ropanoate) (9CI) (CA INDEX NAME)

Absolute stereochemistry.

PAGE 2-A

RN 162741-33-5 HCAPLUS

CN D-Glucopyranose, O-(N-acetyl-4,7,8,9-tetra-O-acetyl-1-methyl- α -neuraminosyl)-(2+3)-O-2,4,6-tri-O-acetyl- β -D-galactopyranosyl-(1+3)-O-[2,3,4-tri-O-acetyl-6-deoxy- α -L-galactopyranosyl-(1+4)]-O-6-O-acetyl-2-deoxy-2-(1,3-dihydro-1,3-dioxo-2H-isoindol-2-yl)- β -D-glucopyranosyl-(1+3)-O-2,4,6-tri-O-acetyl- β -D-galactopyranosyl-(1+4)-, 1,3,6-triacetate 2-(2,2-dimethylpropanoate) (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN162741-35-7 HCAPLUS $\alpha\text{-D-Glucopyranose, O-(N-acetyl-4,7,8,9-tetra-O-acetyl-1-methyl-methyl-1$ CN α -neuraminosyl)-(2 \rightarrow 3)-O-2,4,6-tri-O-acetyl- β -Dgalactopyranosyl- $(1\rightarrow 3)$ -O-[2,3,4-tri-O-acetyl-6-deoxy- α -Lgalactopyranosyl- $(1\rightarrow 4)$]-O-6-O-acetyl-2-deoxy-2-(1,3-dihydro-1,3dioxo-2H-isoindol-2-yl)- β -D-glucopyranosyl- $(1\rightarrow 3)$ -O-2,4,6-tri-Oacetyl- β -D-galactopyranosyl- $(1\rightarrow 4)$ -, 3,6-diacetate 2-(2,2-dimethylpropanoate) 1-(2,2,2-trichloroethanimidate) (9CI) (CA

Absolute stereochemistry. Rotation (-).

INDEX NAME)

PAGE 2-A

RN 162741-36-8 HCAPLUS

CN β -D-Glucopyranoside, (2S, 3R, 4E) -2-azido-3-[[(1,1dimethylethyl)diphenylsilyl]oxy]-4-octadecenyl O-(N-acetyl-4,7,8,9-tetra-0-acetyl-1-methyl- α -neuraminosyl)-(2 \rightarrow 3)-O-2,4,6-tri-O-acetyl- β -D-galactopyranosyl-(1 \rightarrow 3)-O-[2,3,4-tri-O-acetyl-6-deoxy- α -L-galactopyranosyl-(1 \rightarrow 4)]-O-6-O-acetyl-2-deoxy-2-(1,3dihydro-1,3-dioxo-2H-isoindol-2-yl)- β -D-glucopyranosyl-(1+3)-O-2,4,6-tri-O-acetyl- β -D-galactopyranosyl- $(1\rightarrow 4)$ -, 3,6-diacetate 2-(2,2-dimethylpropanoate) (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-). Double bond geometry as shown.

PAGE 2-B

OAc

OAc

RN 162741-37-9 HCAPLUS

Tetracosanamide, N-[(1S,2R,3E)-1-[[[O-(N-acetyl-4,7,8,9-tetra-O-acetyl-1-methyl- α -neuraminosyl)-(2 \rightarrow 3)-O-2,4,6-tri-O-acetyl- β -D-galactopyranosyl-(1 \rightarrow 3)-O-[2,3,4-tri-O-acetyl-6-deoxy- α -L-galactopyranosyl-(1 \rightarrow 4)]-O-6-O-acetyl-2-deoxy-2-(1,3-dihydro-1,3-dioxo-2H-isoindol-2-yl)- β -D-glucopyranosyl-(1 \rightarrow 3)-O-2,4,6-tri-O-acetyl- β -D-galactopyranosyl-(1 \rightarrow 4)-3,6-di-O-acetyl-2-O-(2,2-

dimethyl-1-oxopropyl)- β -D-glucopyranosyl]oxy]methyl]-2-[[(1,1-dimethylethyl)diphenylsilyl]oxy]-3-heptadecenyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-). Double bond geometry as shown.

PAGE 1-A

PAGE 1-B

PAGE 2-B

OAc

....OAc

RN 162741-38-0 HCAPLUS

Tetracosanamide, N-[1-[[[O-(N-acetyl-4,7,8,9-tetra-O-acetyl- α -neuraminosyl)-(2+3)-O-2,4,6-tri-O-acetyl- β -D-galactopyranosyl-(1+3)-O-[2,3,4-tri-O-acetyl-6-deoxy- α -L-galactopyranosyl-(1+4)]-O-6-O-acetyl-2-deoxy-2-(1,3-dihydro-1,3-dioxo-2H-isoindol-2-yl)- β -D-glucopyranosyl-(1+3)-O-2,4,6-tri-O-acetyl- β -D-galactopyranosyl-(1+4)-3,6-di-O-acetyl-2-O-(2,2-dimethyl-1-oxopropyl)- β -D-glucopyranosyl]oxy]methyl]-2-[[(1,1-dimethylethyl)diphenylsilyl]oxy]-3-heptadecenyl]-, monolithium salt, [R-[R*,S*-(E)]]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

Double bond geometry as shown.

PAGE 1-B

● Li

PAGE 2-B

RN 162741-44-8 HCAPLUS

CN β -D-Glucopyranoside, phenylmethyl O-6-deoxy-2,3,4-tris-O- (phenylmethyl)- α -L-galactopyranosyl-(1 \rightarrow 4)-O-[2,3,4-tri-O-acetyl-6-O-(phenylmethyl)- β -D-galactopyranosyl-(1 \rightarrow 3)]-O-2-deoxy-2-(1,3-dihydro-1,3-dioxo-2H-isoindol-2-yl)-6-O-(phenylmethyl)- β -D-glucopyranosyl-(1 \rightarrow 3)-O-2,4,6-tris-O-(phenylmethyl)- β -D-galactopyranosyl-(1 \rightarrow 4)-3,6-bis-O-(phenylmethyl)-,2-(2,2-dimethyl)ropanoate) (9CI) (CA INDEX NAME)

RN 162741-45-9 HCAPLUS

CN β -D-Glucopyranoside, phenylmethyl O-6-deoxy-2,3,4-tris-O-(phenylmethyl)- α -L-galactopyranosyl-(1 \rightarrow 4)-O-[6-O-(phenylmethyl)- β -D-galactopyranosyl-(1 \rightarrow 3)]-O-2-(acetylamino)-2-

10/19/04

deoxy-6-0-(phenylmethyl)- β -D-glucopyranosyl-(1 \rightarrow 3)-0-2,4,6-tris-O-(phenylmethyl)- β -D-galactopyranosyl-(1 \rightarrow 4)-3,6-bis-O-(phenylmethyl)-, 2-(2,2-dimethylpropanoate) (9CI) (CA INDEX NAME)

Absolute stereochemistry.

PAGE 1-A

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RN162741-46-0 HCAPLUS

CN D-Glucopyranose, O-(N-acetyl-4,7,8,9-tetra-0-acetyl-1-methyl- α neuraminosyl) - $(2\rightarrow 3)$ -O-2, 4, 6-tri-O-acetyl- β -D-galactopyranosyl- $(1\rightarrow 3)$ -0-[2,3,4-tri-0-acetyl-6-deoxy- α -L-galactopyranosyl- $(1\rightarrow 4)$]-O-6-O-acetyl-2-deoxy-2-(1,3-dihydro-1,3-dioxo-2H-isoindol-2y1)- β -D-glucopyranosyl-(1+3)-O-2,4,6-tri-O-acetyl- β -Dgalactopyranosyl- $(1\rightarrow 3)$ -O-[2,3,4-tri-O-acetyl-6-deoxy- α -Lgalactopyranosyl- $(1\rightarrow 4)$]-0-6-0-acetyl-2-(acetylamino)-2-deoxy- β -D-glucopyranosyl- $(1\rightarrow 3)$ -O-2,4,6-tri-O-acetyl- β -Dgalactopyranosyl- $(1\rightarrow 4)$ -, 1,3,6-triacetate 2-(2,2dimethylpropanoate) (9CI) (CA INDEX NAME)

Absolute stereochemistry.

PAGE 1-A

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RN 162741-48-2 HCAPLUS

CN α -D-Glucopyranose, O-(N-acetyl-4,7,8,9-tetra-O-acetyl-1-methyl- α -neuraminosyl)-(2+3)-O-2,4,6-tri-O-acetyl- β -D-galactopyranosyl-(1+3)-O-[2,3,4-tri-O-acetyl-6-deoxy- α -L-galactopyranosyl-(1+4)]-O-6-O-acetyl-2-deoxy-2-(1,3-dihydro-1,3-dioxo-2H-isoindol-2-yl)- β -D-glucopyranosyl-(1+3)-O-2,4,6-tri-O-acetyl- β -D-galactopyranosyl-(1+3)-O-[2,3,4-tri-O-acetyl-6-deoxy- α -L-galactopyranosyl-(1+4)]-O-6-O-acetyl-2-

(acetylamino) -2-deoxy- β -D-glucopyranosyl- $(1\rightarrow 3)$ -O-2,4,6-tri-O-acetyl- β -D-galactopyranosyl- $(1\rightarrow 4)$ -, 3,6-diacetate 2-(2,2-dimethylpropanoate) 1-(2,2,2-trichloroethanimidate) (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).

PAGE 1-A

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RN 162741-49-3 HCAPLUS

CN β -D-Glucopyranoside, 2-azido-3-[[(1,1-dimethylethyl)diphenylsilyl]oxy]-4-octadecenyl O-(N-acetyl-4,7,8,9-tetra-O-acetyl-1-methyl- α -neuraminosyl)-(2-3)-O-2,4,6-tri-O-acetyl- β -D-galactopyranosyl-(1-3)-O-[2,3,4-tri-O-acetyl-6-deoxy- α -L-galactopyranosyl-

 $(1\rightarrow4)$]-O-6-O-acetyl-2-deoxy-2-(1,3-dihydro-1,3-dioxo-2H-isoindol-2yl)- β -D-glucopyranosyl-(1 \rightarrow 3)-O-2,4,6-tri-O-acetyl- β -Dgalactopyranosyl- $(1\rightarrow 3)$ -O-[2,3,4-tri-O-acetyl-6-deoxy- α -Lgalactopyranosyl- $(1\rightarrow 4)$]-0-6-0-acetyl-2-(acetylamino)-2-deoxy- β -D-glucopyranosyl- $(1\rightarrow 3)$ -O-2,4,6-tri-O-acetyl- β -Dgalactopyranosyl- $(1\rightarrow 4)$ -, 3,6-diacetate 2-(2,2-dimethylpropanoate), [R-[R*,S*-(E)]]-(9CI) (CA INDEX NAME)

Absolute stereochemistry. Double bond geometry as shown.

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RN 162741-66-4 HCAPLUS

CN β -D-Glucopyranoside, phenylmethyl O-6-deoxy-2,3,4-tris-O-(phenylmethyl)- α -L-galactopyranosyl-(1 \rightarrow 4)-O-[3-O-(1,4-dioxopentyl)-6-O-(phenylmethyl)- β -D-galactopyranosyl-(1 \rightarrow 3)]-O-2-(acetylamino)-2-deoxy-6-O-(phenylmethyl)- β -D-galactopyranosyl-(1 \rightarrow 3)-O-2,4,6-tris-O-(phenylmethyl)- β -D-galactopyranosyl-(1 \rightarrow 4)-3,6-bis-O-(phenylmethyl)-, 2-(2,2-dimethylpropanoate) (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).

RN 162741-67-5 HCAPLUS

CN β -D-Glucopyranoside, phenylmethyl O-2,3-bis-O-(1,4-dioxopentyl)-6-O-(phenylmethyl)- β -D-galactopyranosyl-(1 \rightarrow 3)-O-[6-deoxy-2,3,4-tris-O-(phenylmethyl)- α -L-galactopyranosyl-(1 \rightarrow 4)]-O-2-(acetylamino)-2-deoxy-6-O-(phenylmethyl)- β -D-glucopyranosyl-(1 \rightarrow 3)-O-2,4,6-tris-O-(phenylmethyl)- β -D-galactopyranosyl-(1 \rightarrow 4)-3,6-bis-O-(phenylmethyl)-, 2-(2,2-dimethyl)ropanoate) (9CI) (CA INDEX NAME)

RN 162741-68-6 HCAPLUS

CN β -D-Glucopyranoside, phenylmethyl O-6-deoxy-2,3,4-tris-O-(phenylmethyl)- α -L-galactopyranosyl-(1 \rightarrow 4)-O-[2,4-di-O-acetyl-3-O-(1,4-dioxopentyl)-6-O-(phenylmethyl)- β -D-galactopyranosyl-(1 \rightarrow 3)]-O-2-(acetylamino)-2-deoxy-6-O-(phenylmethyl)- β -D-glucopyranosyl-(1 \rightarrow 3)-O-2,4,6-tris-O-(phenylmethyl)- β -D-galactopyranosyl-(1 \rightarrow 4)-3,6-bis-O-(phenylmethyl)-,2-(2,2-dimethyl)-panoate) (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).

RN 162741-69-7 HCAPLUS

CN D-Glucopyranose, O-2,3,4-tri-O-acetyl-6-deoxy- α -L-galactopyranosyl- $(1\rightarrow 4)$ -O-[2,4,6-tri-O-acetyl-3-O-(1,4-dioxopentyl)- β -D-galactopyranosyl- $(1\rightarrow 3)$]-O-6-O-acetyl-2-(acetylamino)-2-deoxy- β -D-glucopyranosyl- $(1\rightarrow 3)$ -O-2,4,6-tri-O-acetyl- β -D-galactopyranosyl- $(1\rightarrow 4)$ -, 1,3,6-triacetate 2-(2,2-dimethylpropanoate) (9CI) (CA INDEX NAME)

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RN 162741-70-0 HCAPLUS D-Glucose, O-2,3,4-tri-O-acetyl-6-deoxy- α -L-galactopyranosyl- $(1\rightarrow 4)$ -O-[2,4,6-tri-O-acetyl-3-O-(1,4-dioxopentyl)- β -D-galactopyranosyl- $(1\rightarrow 3)$]-O-6-O-acetyl-2-(acetylamino)-2-deoxy- β -D-glucopyranosyl- $(1\rightarrow 3)$ -O-2,4,6-tri-O-acetyl- β -D-

galactopyranosyl- $(1\rightarrow 4)$ -, 3,6-diacetate 2-(2,2-dimethylpropanoate)

(9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 162741-71-1 HCAPLUS CN α -D-Glucopyranose, O-2,3,4-tri-O-acetyl-6-deoxy- α -L-galactopyranosyl-(1+4)-O-[2,4,6-tri-O-acetyl-3-O-(1,4-dioxopentyl)- β -D-galactopyranosyl-(1+3)]-O-6-O-acetyl-2-(acetylamino)-2-deoxy- β -D-glucopyranosyl-(1+3)-O-2,4,6-tri-O-acetyl- β -D-galactopyranosyl-(1+4)-, 3,6-diacetate 2-(2,2-dimethylpropanoate) 1-(2,2,2-trichloroethanimidate) (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).

RN 162741-72-2 HCAPLUS

Tetracosanamide, N-[(1S,2R,3E)-2-(benzoyloxy)-1-[[[0-2,3,4-tri-0-acetyl-6-deoxy- α -L-galactopyranosyl-(1 \rightarrow 4)-0-[2,4,6-tri-0-acetyl-3-0-(1,4-dioxopentyl)- β -D-galactopyranosyl-(1 \rightarrow 3)]-0-6-0-acetyl-2-(acetylamino)-2-deoxy- β -D-glucopyranosyl-(1 \rightarrow 3)-0-2,4,6-tri-0-acetyl- β -D-galactopyranosyl-(1 \rightarrow 4)-3,6-di-0-acetyl-2-0-(2,2-dimethyl-1-oxopropyl)- β -D-glucopyranosyl]oxy]methyl]-3-heptadecenyl]-(9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-). Double bond geometry as shown.

RN 162741-73-3 HCAPLUS

Tetracosanamide, N-[(1S,2R,3E)-2-(benzoyloxy)-1-[[[0-2,3,4-tri-0-acetyl-6-deoxy- α -L-galactopyranosyl-(1-4)-0-[2,4,6-tri-0-acetyl- β -D-galactopyranosyl-(1-3)]-0-6-0-acetyl-2-(acetylamino)-2-deoxy- β -D-glucopyranosyl-(1-3)-0-2,4,6-tri-0-acetyl- β -D-galactopyranosyl-(1-4)-3,6-di-0-acetyl-2-0-(2,2-dimethyl-1-oxopropyl)- β -D-glucopyranosyl]oxy]methyl]-3-heptadecenyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-). Double bond geometry as shown.

RN 162741-74-4 HCAPLUS

Tetracosanamide, N-[(1S,2R,3E)-2-(benzoyloxy)-1-[[[0-2,3,4-tri-0-acetyl-6-deoxy- α -L-galactopyranosyl-(1+4)-0-[2,4,6-tri-0-acetyl-3-0-sulfo- β -D-galactopyranosyl-(1+3)]-0-6-0-acetyl-2-(acetylamino)-2-deoxy- β -D-glucopyranosyl-(1+3)-0-2,4,6-tri-0-acetyl- β -D-galactopyranosyl-(1+4)-3,6-di-0-acetyl-2-0-(2,2-dimethyl-1-oxopropyl)- β -D-glucopyranosyl]oxy]methyl]-3-heptadecenyl]-, monosodium salt (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-). Double bond geometry as shown.

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RN 162741-79-9 HCAPLUS CN β-D-Glucopyranoside.

 $\beta\text{-D-Glucopyranoside},$ phenylmethyl O-2,3,4-tri-O-acetyl-6-O- (phenylmethyl)- $\beta\text{-D-galactopyranosyl-}(1\rightarrow4)$ -O-3-O-acetyl-2-deoxy-2-(1,3-dihydro-1,3-dioxo-2H-isoindol-2-yl)-6-O- (phenylmethyl)- β -D-glucopyranosyl-(1 \rightarrow 3)-O-2,4,6-tris-O-(phenylmethyl)- β -D-

galactopyranosyl- $(1\rightarrow 4)$ -3,6-bis-0-(phenylmethyl)-,2-(2,2-dimethylpropanoate) (9CI) (CA INDEX NAME)

Absolute stereochemistry.

PAGE 1-A

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RN 162741-80-2 HCAPLUS

CN β -D-Glucopyranoside, phenylmethyl O-6-O-(phenylmethyl)- β -D-galactopyranosyl-(1 \rightarrow 4)-O-2-(acetylamino)-2-deoxy-6-O-(phenylmethyl)- β -D-glucopyranosyl-(1 \rightarrow 3)-O-2,4,6-tris-O-(phenylmethyl)- β -D-galactopyranosyl-(1 \rightarrow 4)-3,6-bis-O-(phenylmethyl)-,2-(2,2-dimethyl)-popanoate) (9CI) (CA INDEX NAME)

RN 162741-81-3 HCAPLUS $\begin{array}{lll} & \beta\text{-D-Glucopyranoside, phenylmethyl O-(N-acetyl-4,7,8,9-tetra-O-acetyl-1-methyl-α-neuraminosyl)-(2+3)-O-2,4-di-O-acetyl-6-O- & (phenylmethyl)-β-D-galactopyranosyl-(1+4)-O-[6-deoxy-2,3,4-tris-O-(phenylmethyl)-α-L-galactopyranosyl-(1+3)]-O-2-deoxy-2- & (1,3-dihydro-1,3-dioxo-2H-isoindol-2-yl)-6-O-(phenylmethyl)-β-D-glucopyranosyl-(1+3)-O-6-O-(phenylmethyl)-β-D-galactopyranosyl-(1+3)-O-2-deoxy-6-O-(phenylmethyl)-β-D-glucopyranosyl-(1+3)-O-2,4,6-tris-O-(phenylmethyl)-β-D-galactopyranosyl-(1+4)-3,6-bis-O-(phenylmethyl)-, & (2-(2,2-dimethyl)propanoate) & (9CI) & (CA INDEX NAME) & (CA INDEX NA$

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RN 162741-82-4 HCAPLUS

CN β -D-Glucopyranoside, phenylmethyl O-(N-acetyl-4,7,8,9-tetra-O-acetyl-1-methyl- α -neuraminosyl)-(2 \rightarrow 3)-O-2,4-di-O-acetyl-6-O-(phenylmethyl)- β -D-galactopyranosyl-(1 \rightarrow 4)-O-[6-deoxy-2,3,4-tris-O-(phenylmethyl)- α -L-galactopyranosyl-(1 \rightarrow 3)]-O-2-deoxy-2-(1,3-dihydro-1,3-dioxo-2H-isoindol-2-yl)-6-O-(phenylmethyl)- β -D-glucopyranosyl-(1 \rightarrow 3)-O-2,4-di-O-acetyl-6-O-(phenylmethyl)- β -D-galactopyranosyl-(1 \rightarrow 4)-O-3-O-acetyl-2-(acetylamino)-2-deoxy-6-O-(phenylmethyl)- β -D-galactopyranosyl-(1 \rightarrow 3)-O-2,4,6-tris-O-(phenylmethyl)- β -D-galactopyranosyl-(1 \rightarrow 4)-3,6-bis-O-(phenylmethyl)-,2-(2,2-dimethylpropanoate) (9CI) (CA INDEX NAME)

Absolute stereochemistry.

PAGE 3-A

RN 162741-84-6 HCAPLUS

CN D-Glucopyranose, O-(N-acetyl-4,7,8,9-tetra-0-acetyl-1-methyl- α -neuraminosyl)-(2+3)-O-2,4,6-tri-O-acetyl- β -D-galactopyranosyl-(1+4)-O-[2,3,4-tri-O-acetyl-6-deoxy- α -L-galactopyranosyl-(1+3)]-O-6-O-acetyl-2-deoxy-2-(1,3-dihydro-1,3-dioxo-2H-isoindol-2-yl)- β -D-glucopyranosyl-(1+3)-O-2,4,6-tri-O-acetyl- β -D-galactopyranosyl-(1+4)-O-3,6-di-O-acetyl-2-(acetylamino)-2-deoxy- β -D-glucopyranosyl-(1+3)-O-2,4,6-tri-O-acetyl- β -D-galactopyranosyl-(1+4)-, 1,3,6-triacetate 2-(2,2-dimethylpropanoate) (9CI) (CA INDEX NAME)

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RN 162741-87-9 HCAPLUS
Tetracosanamide, N-[(1S,2R,3E)-1-[[[O-(N-acetyl-4,7,8,9-tetra-O-acetyl-1-methyl- α -neuraminosyl)-(2+3)-O-2,4,6-tri-O-acetyl- β -D-galactopyranosyl-(1+4)-O-[2,3,4-tri-O-acetyl-6-deoxy- α -L-galactopyranosyl-(1+3)]-O-6-O-acetyl-2-deoxy-2-(1,3-dihydro-1,3-dioxo-2H-isoindol-2-yl)- β -D-glucopyranosyl-(1+3)-O-2,4,6-tri-O-acetyl- β -D-galactopyranosyl-(1+4)-O-3,6-di-O-acetyl-2-(acetylamino)-2-deoxy- β -D-glucopyranosyl-(1+3)-O-2,4,6-tri-O-acetyl- β -D-galactopyranosyl-(1+4)-3,6-di-O-acetyl-2-(2,2-dimethyl-1-oxopropyl)- β -D-glucopyranosyl]oxy]methyl]-2-(benzoyloxy)-3-heptadecenyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.

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RN 162741-88-0 HCAPLUS

CN Tetracosanamide, N-[(1S,2R,3E)-1-[[[0-(N-acetyl-4,7,8,9-tetra-0-acetyl-\$\alpha-neuraminosyl)-(2\rightarrow3)-0-2,4,6-tri-0-acetyl-\$\beta-D-\$ galactopyranosyl-(1\rightarrow4)-0-[2,3,4-tri-0-acetyl-6-deoxy-\$\alpha-L-\$ galactopyranosyl-(1\rightarrow3)]-0-6-0-acetyl-2-deoxy-2-(1,3-dihydro-1,3-dioxo-2H-isoindol-2-yl)-\$\beta-D-glucopyranosyl-(1\rightarrow3)-0-2,4,6-tri-0-acetyl-\$\beta-D-galactopyranosyl-(1\rightarrow4)-0-3,6-di-0-acetyl-2-(acetylamino)-2-deoxy-\$\beta-D-glucopyranosyl-(1\rightarrow3)-0-2,4,6-tri-0-acetyl-\$\beta-D-galactopyranosyl-(1\rightarrow4)-3,6-di-0-acetyl-2-0-(2,2-dimethyl-1-oxopropyl)-\$\beta-D-glucopyranosyl]oxy]methyl]-2-(benzoyloxy)-3-heptadecenyl]-, monolithium salt (9CI) (CA INDEX NAME)

Absolute stereochemistry.

Double bond geometry as shown.

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PAGE 3-B

● Li

Absolute stereochemistry.

Double bond geometry as shown.

PAGE 1-B

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RN 162741-90-4 HCAPLUS

CN β -D-Glucopyranoside, phenylmethyl O-2,3,4-tri-O-acetyl-6-O-(phenylmethyl)- β -D-galactopyranosyl-(1 \rightarrow 3)-O-2-deoxy-2-(1,3-dihydro-1,3-dioxo-2H-isoindol-2-yl)-4,6-O-(phenylmethylene)- β -D-galactopyranosyl-(1 \rightarrow 3)-O-2,4,6-tris-O-(phenylmethyl)- β -D-galactopyranosyl-(1 \rightarrow 4)-3,6-bis-O-(phenylmethyl)-,2-(2,2-dimethyl)-popanoate), (R)- (9CI) (CA INDEX NAME)

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RN 162741-91-5 HCAPLUS

CN β -D-Glucopyranoside, phenylmethyl O-6-O-(phenylmethyl)- β -D-galactopyranosyl-(1+3)-O-2-deoxy-2-(1,3-dihydro-1,3-dioxo-2H-isoindol-2-yl)-4,6-O-(phenylmethylene)- β -D-glucopyranosyl-(1+3)-O-2,4,6-tris-O-(phenylmethyl)- β -D-galactopyranosyl-(1+4)-3,6-bis-O-(phenylmethyl)-, 2-(2,2-dimethylpropanoate), (R)-(9CI) (CA INDEX NAME)

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RN 162741-92-6 HCAPLUS $\beta\text{-D-Glucopyranoside, phenylmethyl O-(N-acetyl-4,7,8,9-tetra-O-acetyl-1-methyl-α-neuraminosyl)-(2+3)-O-2,4-di-O-acetyl-6-O- (phenylmethyl)-$\beta\text{-D-galactopyranosyl-}(1+3)-O-[6-deoxy-2,3,4-tris-O-(phenylmethyl)-α-L-galactopyranosyl-(1+4)]-O-2-deoxy-2- (1,3-dihydro-1,3-dioxo-2H-isoindol-2-yl)-6-O-(phenylmethyl)-$\beta\text{-D-glucopyranosyl-}(1+3)-O-2-deoxy-2- (1,3-dihydro-1,3-dioxo-2H-isoindol-2-yl)-4,6-O- (phenylmethyl)-$\beta\text{-D-galactopyranosyl-}(1+3)-O-2-deoxy-2-(1,3-dihydro-1,3-dioxo-2H-isoindol-2-yl)-4,6-O- (phenylmethyl)-$\beta\text{-D-galactopyranosyl-}(1+3)-O-2,4,6-tris-O- (phenylmethyl)-$\beta\text{-D-galactopyranosyl-}(1+4)-3,6-bis-O- (phenylmethyl)-, 2-(2,2-dimethylpropanoate), (R)- (9CI) (CA INDEX NAME)$

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RN 162741-93-7 HCAPLUS

CN β -D-Glucopyranoside, phenylmethyl O-(N-acetyl-4,7,8,9-tetra-O-acetyl-1-methyl- α -neuraminosyl)-(2 \rightarrow 3)-O-2,4-di-O-acetyl-6-O- (phenylmethyl)- β -D-galactopyranosyl-(1 \rightarrow 3)-O-[6-deoxy-2,3,4-tris-O-(phenylmethyl)- α -L-galactopyranosyl-(1 \rightarrow 4)]-O-2-deoxy-2-(1,3-dihydro-1,3-dioxo-2H-isoindol-2-yl)-6-O-(phenylmethyl)- β -D-galactopyranosyl-(1 \rightarrow 3)-O-4-O-acetyl-6-O-(phenylmethyl)- β -D-galactopyranosyl-(1 \rightarrow 3)-O-2-deoxy-2-(1,3-dihydro-1,3-dioxo-2H-isoindol-2-yl)-4,6-O-(phenylmethylene)- β -D-glucopyranosyl-(1 \rightarrow 3)-O-2,4,6-tris-O-(phenylmethyl)- β -D-galactopyranosyl-(1 \rightarrow 4)-3,6-bis-O-(phenylmethyl)-, 2-(2,2-dimethylpropanoate), (R)-(9CI) (CA INDEX NAME)

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RN 162741-94-8 HCAPLUS

CN D-Glucopyranose, O-(N-acetyl-4,7,8,9-tetra-0-acetyl-1-methyl- α -neuraminosyl)-(2 \rightarrow 3)-O-2,4,6-tri-O-acetyl- β -D-galactopyranosyl-(1 \rightarrow 3)-O-[2,3,4-tri-O-acetyl-6-deoxy- α -L-galactopyranosyl-(1 \rightarrow 4)]-O-6-O-acetyl-2-deoxy-2-(1,3-dihydro-1,3-dioxo-2H-isoindol-2-yl)- β -D-glucopyranosyl-(1 \rightarrow 3)-O-2,4,6-tri-O-acetyl- β -D-galactopyranosyl-(1 \rightarrow 3)-O-4,6-di-O-acetyl-2-deoxy-2-(1,3-dihydro-1,3-dioxo-2H-isoindol-2-yl)- β -D-glucopyranosyl-(1 \rightarrow 3)-O-2,4,6-tri-O-acetyl- β -D-galactopyranosyl-(1 \rightarrow 4)-,1,3,6-triacetate 2-(2,2-dimethylpropanoate) (9CI) (CA INDEX NAME)

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RN162741-96-0 HCAPLUS CN

 α -D-Glucopyranose, O-(N-acetyl-4,7,8,9-tetra-O-acetyl-1-methyl- α -neuraminosyl)-(2 \rightarrow 3)-O-2,4,6-tri-O-acetyl- β -Dgalactopyranosyl- $(1\rightarrow 3)$ -O-[2,3,4-tri-O-acetyl-6-deoxy- α -Lgalactopyranosyl- $(1\rightarrow 4)$]-0-6-0-acetyl-2-deoxy-2-(1,3-dihydro-1,3 $dioxo-2H-isoindol-2-yl)-\beta-D-glucopyranosyl-(1-3)-O-2,4,6-tri-O-1$ acetyl- β -D-galactopyranosyl- $(1\rightarrow 3)$ -O-4,6-di-O-acetyl-2-deoxy-2- $(1,3-dihydro-1,3-dioxo-2H-isoindol-2-yl)-\beta-D-glucopyranosyl (1\rightarrow 3)$ -0-2,4,6-tri-0-acetyl- β -D-galactopyranosyl- $(1\rightarrow 4)$ -, 3,6-acetate 2-(2,2-dimethylpropanoate) 1-(2,2,2-trichloroethanimidate) (9CI) (CA INDEX NAME)

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RN 162741-97-1 HCAPLUS

CN Tetracosanamide, N-[(1S,2R,3E)-1-[[[O-(N-acetyl-4,7,8,9-tetra-O-acetyl-1-1-1]]]]methyl- α -neuraminosyl)-(2 \rightarrow 3)-0-2,4,6-tri-0-acetyl- β -Dgalactopyranosyl- $(1\rightarrow 3)$ -O-[2,3,4-tri-O-acetyl-6-deoxy- α -L $galactopyranosyl-(1\rightarrow 4)]-0-6-0-acetyl-2-deoxy-2-(1,3-dihydro-1,3$ $\label{eq:dioxo-2H-isoindol-2-yl)-b-glucopyranosyl-(1-3)-0-2,4,6-tri-0-2} dioxo-2H-isoindol-2-yl)-\beta-D-glucopyranosyl-(1-3)-0-2,4,6-tri-0-2H-isoindol-2-yl)-\beta-D-glucopyranosyl-(1-3)-0-2,4,6-tri-0-2H-isoindol-2-yl)-\beta-D-glucopyranosyl-(1-3)-0-2,4,6-tri-0-2H-isoindol-2-yl)-\beta-D-glucopyranosyl-(1-3)-0-2,4,6-tri-0-2H-isoindol-2-yl)-\beta-D-glucopyranosyl-(1-3)-0-2,4,6-tri-0-2H-isoindol-2-yl)-\beta-D-glucopyranosyl-(1-3)-0-2,4,6-tri-0-2H-isoindol-2-yl)-3-2H-isoindol-2-yl-(1-3)-0-2,4,6-tri-0-2H-isoindol-2-yl-(1-3)-0-2+4,6-tri-0-2H-isoindol-2-yl-(1-3)-2-H-isoindol-2-yl-(1-3)-2-H-isoindol-2-yl-(1-3)-2-H-isoindol-2-yl-(1-3)-2-H-isoindol-2-yl-(1-3)-2-H-isoindol-2-yl-(1-3)-2-H-isoindol-2-yl-(1-3)-2-H-isoindol-2-yl-(1-3)-2-H-isoindol-2-yl-(1-3)-2-H-isoindol-2-yl-(1-3)-2-H-isoindol-2-yl-(1-3)-2-H-isoindol-2-H-isoindol-2-H-isoindol-2-yl-(1-3)-2-H-isoindol-2-H-isoindol-2-yl-(1-3)-2-H-isoindol-2-yl-(1-3)-2-H-isoindol-2-yl-(1-3)-2-H-isoindol-2-yl-(1-3)-2 \verb|acetyl-\beta-D-galactopyranosyl-(1\rightarrow 3)-O-4, 6-di-O-acetyl-2-deoxy-2-\\$ $(1,3-\texttt{dihydro-1},3-\texttt{dioxo-2H-isoindol-2-yl})-\beta-D-\texttt{glucopyranosyl-1}$ $(1\rightarrow 3)$ -O-2, 4, 6-tri-O-acetyl- β -D-galactopyranosyl- $(1\rightarrow 4)$ -3,6-di-0-acetyl-2-0-(2,2-dimethyl-1-oxopropyl)- β -Dglucopyranosyl]oxy]methyl]-2-(benzoyloxy)-3-heptadecenyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Double bond geometry as shown.

PAGE 1-B

PAGE 2-B

RN 162808-72-2 HCAPLUS α -D-Glucopyranose, O-4,6-di-O-acetyl-2,3-bis-O-(1,4-dioxopentyl)- β -D-galactopyranosyl-(1 \rightarrow 4)-O-[2,3,4-tri-O-acetyl-6-deoxy- α -L-galactopyranosyl-(1 \rightarrow 3)]-O-6-O-acetyl-2-(acetylamino)-2-deoxy- β -D-glucopyranosyl-(1 \rightarrow 3)-O-2,4,6-tri-O-acetyl- β -D-galactopyranosyl-(1 \rightarrow 4)-, 1,3,6-triacetate 2-(2,2-dimethylpropanoate) (9CI) (CA INDEX NAME)

PAGE 1-B

__ Bu-t

ANSWER 12 OF 12 HCAPLUS COPYRIGHT 2004 ACS on STN

ΑN 1995:294200 HCAPLUS

DN 122:64325

Drug-delivery polymers and pharmaceutical compositions employing them TI

Kopecek, Jindrich; Rejmanova, Pavla; Strohalm, Jiri; et al. IN

PA Ustav Makromolekularni Chemie AVCR, Czech Rep.

SO Czech Rep., 50 pp. CODEN: CZXXED

DT Patent

T.A Czech

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
ΡI	CZ 278551	В6	19940316	CZ 1985-97	19850104 19850104
	SK 278506	В6	19970806	SK 1985-97	
PRAI	CZ 1985-97		19850104	2000 3,	

Drug-delivery polymers can be prepared which are composed 5.0-99.7 mol% of AB units derived from Me-C:CH2-CO-NH-CH2-CHOH-Me, 0.2-20.0 mol% of units having the structure Me-C:CH2-CO-[NH-R-CO]-[B], where B is a bioactive mol. or drug, and 0.1-94.8 mol% of units having the structure Me-C:CH2-CO-NH-[D] or Me-C:CH2-CO-[D] or Me-C:CH2-CO-[NH-R-CO]-D, where D is a determinant and [NH-R-CO] is a spacer residue derived from Leu, Phe, Gly-Gly, Gly-Leu-Gly, Gly-Val-Ala, Gly-Phe-Ala, Gly-Leu-Phe, Gly-Leu-Ala, Ala-Val-Ala, Gly-Phe-Leu-Gly, Gly-Phe-Phe-Leu, Gly-Leu-Leuy-Gly, Gly-Phe-Tyr-Ala, Gly-Phe-Gly-Phe, Ala-Gly-Val-Phe, Gly-Phe-Phe-Gly, Gly-Phe-Leu-Gly-Phe, or Gly-Gly-Phe-Leu-Gly-Phe. Copolymers containing the above components can be single or double-chained and may contain as bioactive mols. antitumor drugs, antimicrobials, parasiticides, antiinflammatories, cardiovascular agents, or nervous system agents. determinants may be monosaccharides, disaccharides,

oligosaccharides, or O-methacryloylated sugars, which are preferably linked by an amide bond to an antibody such as IgG or anti-0 antibody, or a protein such as transferrin, or a hormone such as MSH. Suitable determinants are galactose, galactosamine, glucosamine, mannosamine, and fucosylamine. The peptide spacers are degradable by lysosomal enzymes, releasing the pharmacol. active agents after the copolymer is taken up by target cells. Data are presented on the antileukemic activity of several claimed copolymers against leukemia L1210, and antitumor activity against melanoma and human hepatoma.

IC A61K047-30

CC 63-5 (Pharmaceuticals) Section cross-reference(s): 35

drug delivery copolymer formulation prepn antitumor

ΙT

ST

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT

(anti-O, polymer-daunomycin conjugates; preparation of drug-delivery polymers and pharmaceutical compns. employing them)

IT Antibodies

> RL: RCT (Reactant); RACT (Reactant or reagent) (anti-O; preparation of drug-delivery polymers and pharmaceutical compns. employing them)

IT Transferrins

> RL: RCT (Reactant); RACT (Reactant or reagent) (conjugation; preparation of drug-delivery polymers and pharmaceutical compns. employing them)

IT Lysosome

(enzymes; drug release from drug-delivery peptide copolymers degradation by)

TT Enzymes

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); BIOL (Biological study)

(lysosomal; drug release from drug-delivery peptide copolymers degradation by)

ITTransferrins

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(polymer conjugates; preparation of drug-delivery polymers and pharmaceutical compns. employing them)

ΙT Virucides and Virustats

(preparation of drug-delivery polymers and pharmaceutical compns. employing them)

IT Immunoglobulins

RL: RCT (Reactant); RACT (Reactant or reagent)

(G, conjugation; preparation of drug-delivery polymers and pharmaceutical compns. employing them)

IT Immunoglobulins

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(G, polymer conjugates; preparation of drug-delivery polymers and pharmaceutical compns. employing them)

IT Neoplasm inhibitors

(hepatoma, preparation of drug-delivery polymers and pharmaceutical compns. employing them)

IT Liver, neoplasm

> (hepatoma, inhibitors, preparation of drug-delivery polymers and pharmaceutical compns. employing them)

IT Neoplasm inhibitors

(leukemia, preparation of drug-delivery polymers and pharmaceutical compns. employing them)

IT Neoplasm inhibitors

(melanoma, preparation of drug-delivery polymers and pharmaceutical compns. employing them)

IT Pharmaceutical dosage forms

(polymer-bound, preparation of drug-delivery polymers and pharmaceutical compns. employing them)

IT 76597-37-0 104845-62-7

RL: RCT (Reactant); RACT (Reactant or reagent) (branch polymer bridge; preparation of drug-delivery polymers and pharmaceutical compns. employing them)

ΙT 24724-90-1, Fucosamine ΙT

ΙT

IT

ΙT

ΙT

IT

IT

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10/19/04
                            Page 147
 RL: RCT (Reactant); RACT (Reactant or reagent)
     (conjugation; preparation of drug-delivery polymers and pharmaceutical
    compns. employing them)
 2715-36-8
             100424,-71-3
 RL: RCT (Reactant); RACT (Reactant or reagent)
    (copolymn.; preparation of drug-delivery polymers and pharmaceutical compns.
    employing them)
 104845-64-9P
                106255-99-6P
 RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT
 (Reactant or reagent)
    (copolymn.; preparation of drug-delivery polymers and pharmaceutical compns.
    employing them)
 104845-58-1P
 RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT
 (Reactant or reagent)
    (deprotection; preparation of drug-delivery polymers and pharmaceutical
    compns. employing them)
 60616-82-2, Cathepsin L
 RL: BAC (Biological activity or effector, except adverse); BSU (Biological
 study, unclassified); BIOL (Biological study)
    (drug release from drug-delivery peptide copolymers degradation by)
 67-63-0, Isopropanol, reactions
                                   100-02-7, p-Nitrophenol, reactions
 148-82-3, Melphalan
                      104845-48-9
 RL: RCT (Reactant); RACT (Reactant or reagent)
    (esterification; preparation of drug-delivery polymers and pharmaceutical
   compns. employing them)
105055-03-6DP, conjugates with daunomycin and galactosamine
RL: BAC (Biological activity or effector, except adverse); BSU (Biological
study, unclassified); RCT (Reactant); SPN (Synthetic preparation); THU
 (Therapeutic use); BIOL (Biological study); PREP (Preparation); RACT
 (Reactant or reagent); USES (Uses)
   (preparation of drug-delivery polymers and pharmaceutical compns. employing
   them)
70-51-9DP, polymer conjugates
                                3476-50-4DP, Deacetylcolchicine, polymer
            9002-79-3DP, Msh, polymer conjugates 14307-02-9DP,
Mannosamine, polymer conjugates 20830-81-3DP, Daunomycin, polymer
conjugates
             21442-01-3DP, N-(2-Hydroxypropyl)methacrylamide, copolymers
with methacryloylated oligopeptides and methacryloylated
aminosaccharide-oligopeptides and methacryloylated
p-nitrophenylpeptides
                       23214-92-8DP, Adriamycin, polymer conjugates
24724-90-1DP, Fucosamine, polymer conjugates 57950-81-9DP, conjugates
           58970-76-6DP, Bestatin, polymer conjugates
                                                        68148-50-5DP.
conjugates with IgG
                      79637-23-3DP, conjugates with puromycin and
               79637-25-5DP, conjugates with bleomycin
fucosylamine
                                                         105055-03-6DP.
conjugates with daunomycin and galactosamine and N,N'-
bis (phenylalanyl) hexamethylenediamine 105055-06-9DP, bleomycin
             105055-08-1DP, conjugates with adriamycin and mannosamine
160203-40-7DP, daunomycin conjugate 160203-42-9DP, daunomycin conjugate
160203-43-0DP, conjugates with daunomycin
RL: BAC (Biological activity or effector, except adverse); BSU (Biological
study, unclassified); SPN (Synthetic preparation); THU
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(preparation of drug-delivery polymers and pharmaceutical compns. employing them)

IT 53-79-2, Puromycin 70-51-9 686-50-0, Leucylglycine 3303-55-7 3482-37-9, Trimethylcolchicinic acid 4530-20-5, BOC-glycine 4985-46-0, 7535-00-4, Galactosamine 9002-79-3, MSH 14307-02-9, Tyrosinamide

(Preparation); USES (Uses)

(Therapeutic use); BIOL (Biological study); PREP

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16522-41-1, p-Nitrophenyl methacrylate
        Mannosamine
                                                                                20830-81-3,
        Daunomycin
                         23214-92-8, Adriamycin 32991-17-6 57950-79-5
        58970-76-6, Bestatin
                                      64325-18-4
                                                       73787-46-9
                                                                       105055-05-8
        RL: RCT (Reactant); RACT (Reactant or reagent)
            (preparation of drug-delivery polymers and pharmaceutical compns. employing
            them)
  IT
        53-79-2DP, Puromycin, polymer conjugate
                                                               3476-50-4P, Deacetylcolchicine
        10065-72-2P, Alanine methyl ester 13734-41-3P 29486-28-0P,
        N-Methacryloylalanine 33857-88-4P 47477-04-3P, Deacetylisocolchicine
        57950-81-9P
                          68148-50-5P
                                            69936-04-5P
                                                              79637-23-3P
                                                                                 79637-24-4P
        79637-25-5P
                          91147-51-2P
                                            100424-71-3P 104845-47-8P
                                                                                  104845-57-0P
        104845-59-2P
                          104845-60-5P
                                               104845-65-0P
                                                                  105055-06-9P
                                                                                      105055-08-1P
        160203-42-9P 160203-43-0P
        RL: RCT (Reactant); SPN (Synthetic preparation); PREP
        (Preparation); RACT (Reactant or reagent)
            (preparation of drug-delivery polymers and pharmaceutical compns. employing
            them)
        105055-03-6P
 ΙT
       RL: SPN (Synthetic preparation); PREP (Preparation)
            (preparation of drug-delivery polymers and pharmaceutical compns. employing
       477-30-5D, Colcemid, copolymd. peptide conjugates
 ΙT
                                                                           1465-26-5D,
       Sarcolysin, copolymd. peptide conjugates
       RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
           (preparation of drug-delivery polymers and pharmaceutical compns. employing
 IT
       56-41-7, Alanine, reactions
                                              72-18-4, Valine, reactions
       RL: RCT (Reactant); RACT (Reactant or reagent)
           (protection; preparation of drug-delivery polymers and pharmaceutical
           compns. employing them)
 IT
       160203-43-0DP, conjugates with daunomycin
       RL: BAC (Biological activity or effector, except adverse); BSU (Biological
       study, unclassified); SPN (Synthetic preparation); THU
       (Therapeutic use); BIOL (Biological study); PREP
       (Preparation); USES (Uses)
           (preparation of drug-delivery polymers and pharmaceutical compns. employing
           them)
       160203-43-0 HCAPLUS
RN
CN
       Glycine, N-[N-[N-(2-methyl-1-oxo-2-propenyl)glycyl]-L-phenylalanyl]-L-phenylalanyl]-L-phenylalanyl]-L-phenylalanyl]-L-phenylalanyl]-L-phenylalanyl]-L-phenylalanyl]-L-phenylalanyl]-L-phenylalanyl]-L-phenylalanyl]-L-phenylalanyl]-L-phenylalanyl]-L-phenylalanyl]-L-phenylalanyl]-L-phenylalanyl]-L-phenylalanyl]-L-phenylalanyl]-L-phenylalanyl]-L-phenylalanyl]-L-phenylalanyl]-L-phenylalanyl]-L-phenylalanyl]-L-phenylalanyl]-L-phenylalanyl]-L-phenylalanyl]-L-phenylalanyl]-L-phenylalanyl]-L-phenylalanyl]-L-phenylalanyl]-L-phenylalanyl]-L-phenylalanyl]-L-phenylalanyl]-L-phenylalanyl]-L-phenylalanyl]-L-phenylalanyl]-L-phenylalanyl]-L-phenylalanyl]-L-phenylalanyl]-L-phenylalanyl]-L-phenylalanyl]-L-phenylalanyl
       leucyl]-, 4-nitrophenyl ester, polymer with \alpha-D-galactopyranose
       6-(2-methyl-2-propenoate) (9CI) (CA INDEX NAME)
       CM
             1
      CRN
           100424-71-3
      CMF C29 H35 N5 O8
Absolute stereochemistry.
```

CM 2

CRN 19179-68-1 CMF C10 H16 O7

Absolute stereochemistry.

IT 160203-43-0P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP

(Preparation); RACT (Reactant or reagent)

(preparation of drug-delivery polymers and pharmaceutical compns. employing them)

RN 160203-43-0 HCAPLUS

CN Glycine, N-[N-[N-[N-(2-methyl-1-oxo-2-propenyl)glycyl]-L-phenylalanyl]-L-leucyl]-, 4-nitrophenyl ester, polymer with α -D-galactopyranose 6-(2-methyl-2-propenoate) (9CI) (CA INDEX NAME)

CM 1

CRN 100424-71-3 CMF C29 H35 N5 O8

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CM 2

=>

CRN 19179-68-1 CMF C10 H16 O7